Staff Development and Student Achievement: Making the Connection in Georgia Schools

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The purpose of this study is to examine the connection between staff development and student achievement and to develop a base of knowledge for improving staff development in Georgia. Since 1985, the state has appropriated funds for staff development under the Quality Basic Education Act, one of the most comprehensive statewide initiatives for school improvement in the United States. In fiscal year 1998, Georgia appropriated over $35 million for staff development in schools and school districts. The Georgia Department of Education has collected information about uses of resources, levels of participation, and accomplishments of

effectiveness of staff development in Georgia schools have not been conducted. Indeed, evaluations of staff development programs at a state level are rare. This study provides information to policy makers about whether or not state staff development funds are used in such a way as to have an impact on student achievement. The study also provides information that can be used to help schools maximize the effectiveness of their staff development efforts.

While staff development can be defined in a number of ways, for this study we used the following definition:

> An organized learning opportunity for teachers to acquire knowledge and skills to help them become more effective teachers. Staff development activities may consist of activities such as a single workshop, a conference, a workshop series, summer institutes, college coursework, or organized peer coaching and study group sessions. A staff development activity may be sponsored by many entities including a school, the school district, Regional Education Service Agencies, state agencies, teacher academies, colleges, or professional networks and organizations.

In this study we ask the question, "Do differences in the ways schools and school districts provide staff development for their teachers account for some of the variation in student achievement across Georgia schools?" The general strategy for the investigation was to select a sample of higher and lower achieving schools across a full range of socio-economic status, to gather data on staff development in these schools, and to test the extent to which the characteristics of staff development varied in the two groups of schools. Sixty schools in 35 districts participated in the study. At each school, we interviewed school administrators, conducted a focus group discussion with six to ten teachers, and surveyed teachers in the school (1,150 teachers responded). At the district office, we interviewed the staff development coordinator, personnel director, and finance director to determine the context in which staff development occurred at the schools.

The Differences between Higher and Lower Achieving Schools: A Summary

There were clear differences in the approach to staff development in higher and lower achieving schools. While staff development for teachers in lower achieving schools was considered a function with little connection to classroom results, in higher achieving schools it was more an authentic and collegial effort to improve student performance. Teachers in both groups of schools, however, participated in staff development having similar content and provided by similar sources at similar times during the day and year.

Staff development in the higher achieving schools included greater collaboration on decisions about staff development, a greater focus on students, a greater focus on the

classroom, more use of effective training processes, and more support from leadership. There was an excitement in these schools when teachers and administrators talked about working together to find ways to have a greater impact on students. Central to their discussions about staff development was what happened to their students, what happened in their classrooms, and what happened in their schools. They approached their staff development collectively and professionally.

Staff development in lower achieving schools included a more individualistic and haphazard approach to staff development, a greater emphasis on certification renewal and stipends, less use of effective training strategies, and less support from leadership. Teachers tended to complete needs assessments and sign up for courses or conferences with a focus on their individual needs or desires, rather than on collective needs based on student data. Thus, the job of school leaders in these schools was primarily one of processing the paperwork necessary for teachers to be able to participate in the selected activities and to receive credits and/or stipends for their participation. Table 1 provides a summary of the staff development findings that distinguish the higher achieving schools from the lower achieving schools.

Table 1. Staff Development in Higher and Lower Achieving Schools

Staff Development Characteristics	Higher Achieving	Lower Achieving
1. Decision-Making Process	More collaborative	Less collaborative
2. Content	No difference	No difference
3. Focus	More student and classroom focused	More emphasis on certification renewal and stipends
4. Providers	No difference	No difference
5. Strategies for Providing Time	No difference	No difference
6. Format and Delivery	More training strategies used, higher levels of use by teachers, greater number of positive outcomes	Fewer training strategies used, lower levels of use by teachers, fewer number of positive outcomes
7. Teachers' Views on Support	More sure of support	Less sure of support
8. Leadership at the School	More direction, support and capacity	Less direction, support and capacity
9. Role of the District Office	No direct relationship	No direct relationship
10. Training of Leadership in Guiding Staff Development	No direct relationship	No direct relationship

Table 2. Measuring the Performance of Schools Based on Student Achievement

Grade	Subject Area	Academic Performance Indicator
3rd, 5th, 8th	Reading	1. % of students meeting state goal on CBA
	Social Studies	2. % of students meeting state goal on CBA
	Math	3. % of students meeting state goal on CBA
		4. % of students at or above state quality standard on CBA
	Science	5. % of students meeting state goal on CBA
		6. % of students at or above state quality standard on CBA
11th	English	7. % of students passing the graduation test
	Writing	8. % of students passing the graduation test
	Math	9. % of students passing the graduation test
	Social Studies	10. % of students passing the graduation test

A Note on Selection of Higher and Lower Achieving Schools

We chose the higher and lower achieving schools in a way that allowed comparisons between the extremes. Because there are many factors aside from staff development that influence student achievement, we reasoned that any differences in practices would be most evident when comparing the highest achieving schools with the lowest achieving schools. In our selection of the higher and lower achieving schools we considered student achievement, economic and social characteristics of the students, the school's grade level, and location in Georgia. We examined student achievement in Georgia public schools using the Council for School Performance student achievement indicators for curriculum based assessments (CBAs) (see Table 2). Figure 1 shows the average overall student achievement, the minimum level of student achievement, and the maximum level of student achievement for higher and lower achieving elementary, middle, and high schools in the study. The lines represent the range between the lowest and highest achieving schools and the dot represents the average overall student achievement in the group. As a measure of overall student achievement in a school, we averaged the percentage of students meeting the state goals on the CBAs in the four subject areas.

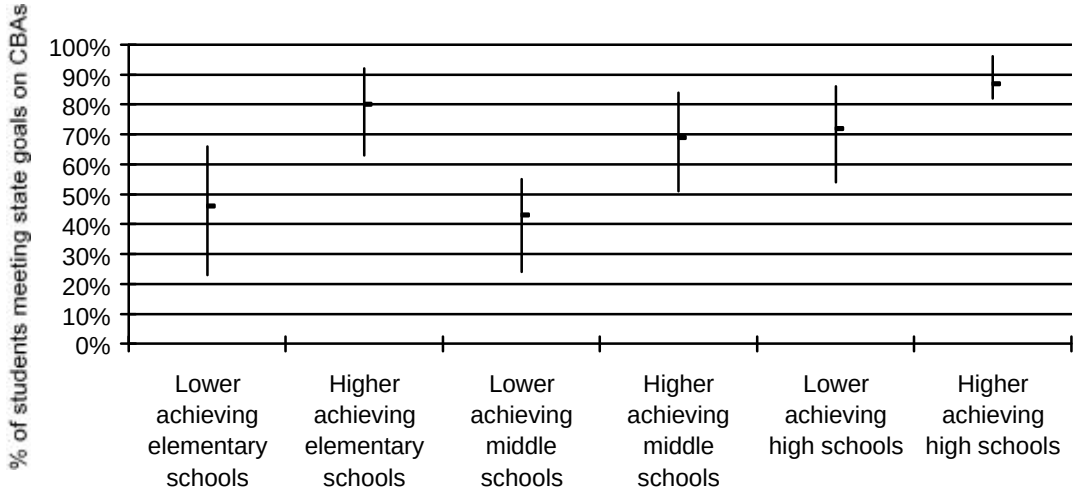


Figure 1. Differences in Student Achievement among Higher and Lower Achieving Schools

Table 3. Differences in Student Achievement between Higher and Lower Achieving Schools with Students with Similar Socio-Economic Status (SES)

Grade Level	School with:	% of students meeting state goals on CBAs Higher Achieving	Lower Achieving
Elementary	Highest SES Students	91%	66%
	Lowest SES Students	63%	23%
Middle	Highest SES Students	83%	55%
	Lowest SES Students	51%	24%
High	Highest SES Students	96%	86%
	Lowest SES Students	84%	54%

The lines for higher and lower achieving schools overlap. In our sample of schools there were some lower achieving schools that actually had a larger percentage of students meeting the state goals on CBAs than some higher achieving schools. This is because we took into consideration economic and social factors in our selection of schools. While the student achievement in some of the higher achieving schools selected was not the highest in absolute terms, it was the highest for schools with similar students from low socio- economic backgrounds. Hence, our use of the terms "higher" and "lower" achieving schools. Table 3 shows the difference in student achievement between higher and lower achieving schools with students of similar socio-economic backgrounds. The elementary school in our higher achieving group with the highest socio-economic status (SES) had 91% of its students meeting the state goals on CBAs. The elementary school in our lower achieving group with similar high SES had only 66% of its students meeting the state goals on CBAs.

In reporting the findings of this study, we use the dimensions of staff development typically found in the literature. This report describes both the similarities and the differences in practices found in higher and lower achieving schools using the following dimensions of staff development as a framework: (a) the decision-making process, (b) the content of staff development, (c) the focus of staff development, (d) the providers of staff development; (e) the strategies for providing time, and (f) the format and delivery. We also discuss the support for staff development including (a) teachers' views on the support for staff development, (b) leadership at the school, (c) the role of the district office, and (d) the experience and training of leadership staff in staff development. The last two sections in this report include a discussion of Georgia staff development policies and the Council's recommendations based on the results of this study. The appendices contain a detailed description of the study's methodology and the research protocols used.

Dimensions of Staff Development

The dimensions of staff development described in the literature are used as a framework for reporting how teachers and administrators in the participating schools perceived staff development in their schools. The evidence we present for the connection between staff development and student achievement is correlational. Certain attitudes and practices were

evident at higher rates among higher achieving schools than lower achieving schools. Not all higher achieving schools exhibited our correlates of good staff development and not all lower achieving schools lacked these correlates.

The context in which staff development takes place is important. Although we address contextual issues, there may be differences we did not address. It is difficult to account for differences in teacher characteristics such as levels of personal development, expertise, and commitment and their interaction with the staff development practices in our schools. Also, there are factors, such as the quality of staff development activities, that may contribute to the effectiveness of staff development that we did not address in detail.

Finally, factors that are addressed in the study but are not associated with higher achieving schools may represent necessary but not sufficient conditions for staff development to be effective. For example, most teachers in both higher and lower achieving schools mentioned personal and professional needs as motivators for participating in staff development. Although we do not describe meeting these needs as a practice that is more common in higher achieving schools, it may be necessary but not sufficient for effective staff development in schools.

In the following sections, we describe the similarities and differences in staff development practices as described by teachers and administrators in higher and lower achieving schools. The dimensions of staff development that frame this discussion are the decision-making process, the content, the focus, the providers, the time allocation, and the format and delivery.

The Decision-Making Process

For many years a common belief has been that staff development is more effective when a deficit model for improvement of teaching is used to guide training. This model implies that teachers are perceived, either by themselves or their supervisors, as having deficits in current skills or knowledge or having the need to expand their teaching repertoire. According to their perceived needs or their supervisor's direction, teachers then select offerings. The reality is much more complicated. Our analysis of decision-making processes in our two groups of schools considers whether teachers select staff development activities (a) as individuals, (b) as individuals directed by school administrators, or (c) as members of faculties making collective decisions. We found that higher achieving schools collectively involved teachers in staff development decisions.

The schools in our study made decisions about staff development primarily in three ways. In one model, the individual teachers make isolated decisions about their own staff development. Assessment of staff development needs in these schools relies mostly on a survey of perceived needs and teacher preferences. These surveys are the district's basis for developing staff development offerings. Thirty-eight percent of the schools in the sample base their staff development on what individual teachers say they want or what they perceive their needs to be. The high schools were more likely than the middle and elementary schools to use the individualized decision-making process.

In other schools, staff development activities are mostly determined by the school administration. The administrators tend to use information such as evaluation of teacher skills, measures of student performance, and other outcomes to help in the assessment of school-wide and individual teacher staff development needs. In many cases the administrators ask for teachers' input but they control most staff development decisions. Schools where the administration decides on the direction needed for staff development comprise 28% of the sample. The middle schools were more likely than the elementary and high schools to use the primarily school administrator directed decision-making process.

In a third model, teachers are involved heavily in the decisions about staff development. The teachers are involved through building leadership teams, school improvement teams, departments, and grade level cluster teams. The teams are responsible for determining the content of staff development needed, for planning the activities, and, sometimes, for the delivery of staff development. Ninety-five percent of the schools using collaborative processes reported emphasizing student outcome data and teacher proficiencies when assessing needs for staff development compared to only 37% of the schools not using collaborative decision processes.

We found examples of higher and lower achieving schools using all three decision-making models: (a) the individualized, (b) the administrator directed, and (c) the collaborative. However, 52% of the higher achieving schools use a collaborative decision-making process as compared to only 20% of lower achieving schools (see Figure 2).

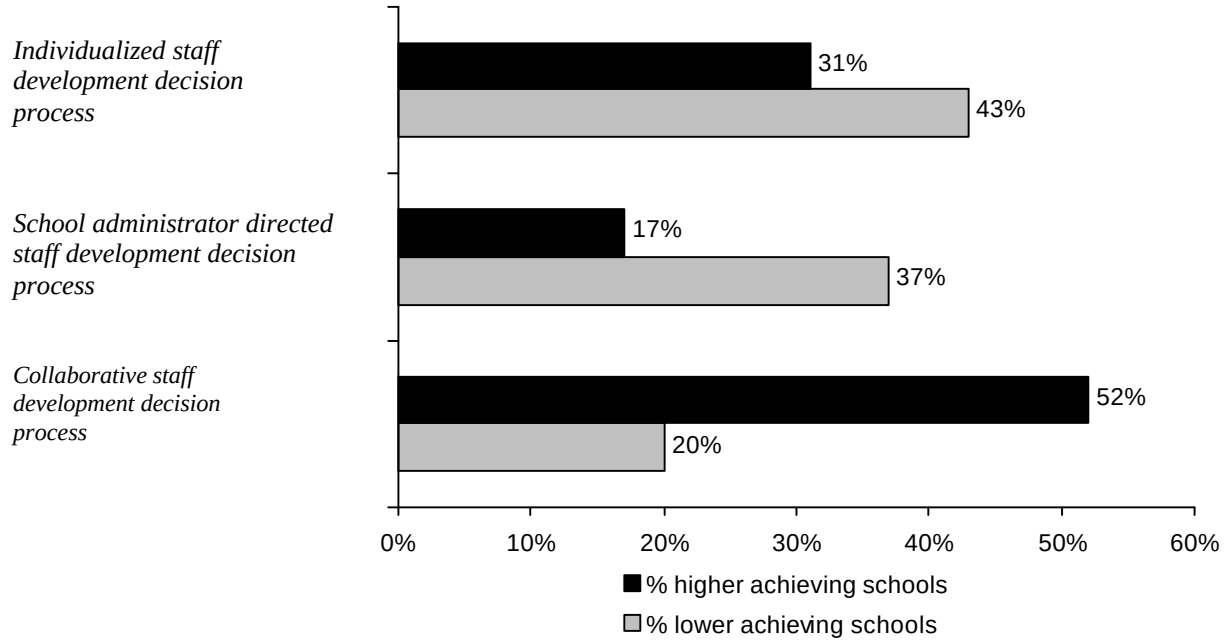
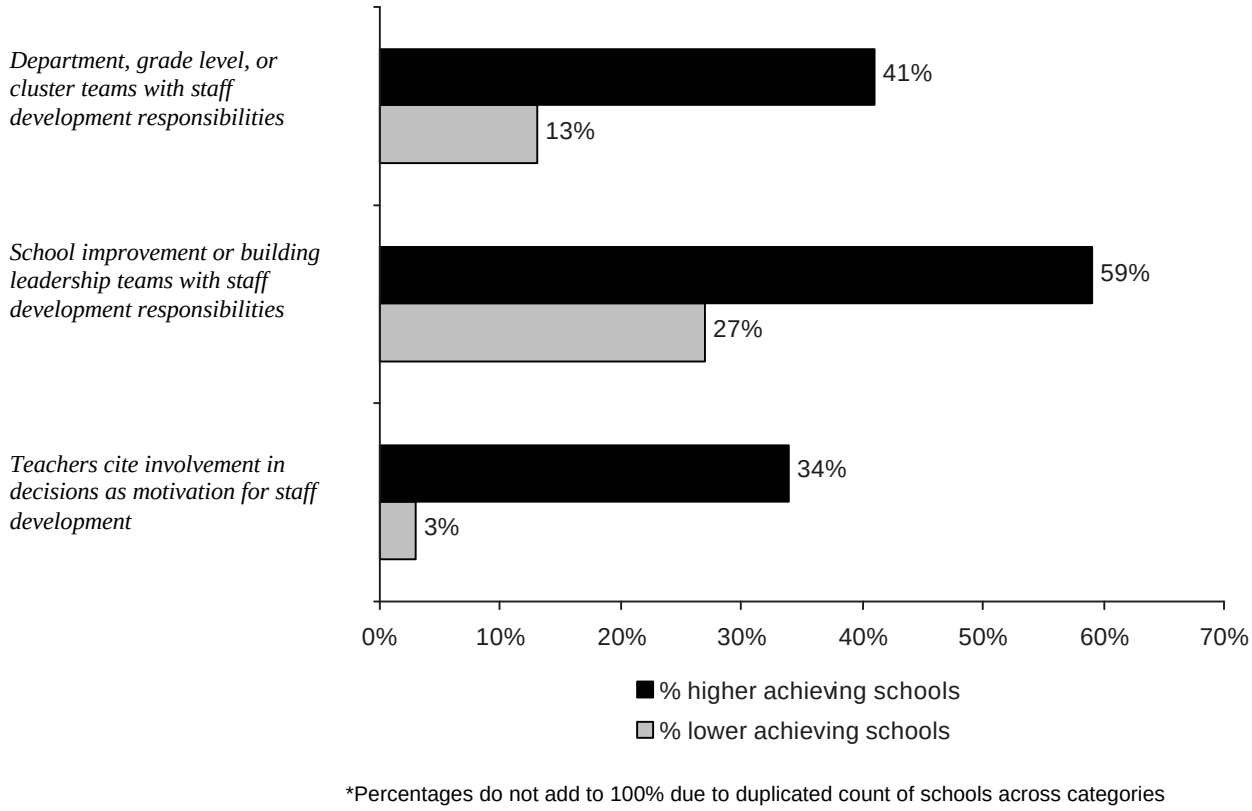


Figure 2. Staff Development Decision-Making Processes of Higher and Lower Achieving Schools

A comparison of the two groups of schools shows that, teachers in higher achieving schools were more involved in the decisions about staff development. As demonstrated in Figure 3, we found substantial differences in the participation of teachers in the decision-making process. In the teacher focus group discussions, when we asked why teachers in their school participate in staff development activities, the groups in 34% of the higher achieving schools said that the teachers want to participate because they have been a part of the planning process. This compares to groups in only 3% of lower achieving schools that gave this reason for participation.



*Percentages do not add to 100% due to duplicated count of schools across categories

Figure 3. How Higher Achieving Schools Collectively Involve Faculty in Staff Development

For example, the teachers at a higher achieving rural high school attributed the 95% rate of participation in training to the faculty's desire to move to a block schedule. Not only did the faculty have input into the decision to move to a block schedule, the students were also involved.

Content of Staff Development

For schools to have high student achievement levels, the teachers must be knowledgeable in their subject areas and in effective teaching strategies. The content of the majority of staff development activities for teachers should reflect the importance of subject knowledge and instructional strategies. In our discussions with school administrators and teachers we found the content of the staff development mentioned was that which is common throughout the nation at this time. The most often discussed topics were instructional strategies, curriculum, and assessment strategies. In 95% of the schools visited, the teachers and administrators reported participating in activities related to such topics in the past two years. Teachers and administrators in almost as many schools talked about technology training (88%), academic content knowledge (85%), and classroom management or discipline (78%).

Table 4. Staff Development Offered by School Districts and RESAs

Staff Development Courses		Percent
1. Training Related to Specific Content Areas		53% *
Language Arts	7% **	
Reading	8% **	
Writing	6% **	
Math	11% **	
Science	14% **	
Technology	49% **	
Social Studies	5% **	
Health/P.E.	5% **	
Foreign Language	3% **	
2. Instructional Strategies, Curriculum, Assessment Strategies		76% *
3. Classroom Management and Discipline		9% *
4. School Improvement Planning, Interacting with Colleagues, Studying the Learning Process with Colleagues		9% *
5. Other - Time management, first aid, healthy lifestyles, etc.		13% *

*of 2,248 courses from 34 school districts
**of 1,184 courses related to specific content areas

Of the more than 2,200 staff development course topics coded from school district or Regional Education Service Agency (RESA) catalogs, three-quarters involved training in instructional strategies, curriculum, or assessment strategies. Half of the offerings were related to specific content areas such as technology, math, reading, science, or other academic content areas. Of these offerings, 49% of them were technology-related training. Table 4 contains the major categories for the content of the staff development offerings. Most of the offerings we coded covered multiple areas. The percentages in the table represent a duplicated count.

We took a different approach to the staff development content question with the teacher survey. On the questionnaire, teachers were asked to describe their best staff development activity and to list additional staff development they had participated in within the last two years. Here too we found most teachers listing their best staff development activity as including instructional strategies, curriculum, or assessment strategies (65%). Thirty percent of the best staff development activities described related to academic content areas focusing primarily on reading, science, or math. Twenty-four percent of the best staff development activities described involved technology, and 17% involved classroom management or discipline.

Focus of Staff Development

Providing teachers with training in their subject areas, assessment strategies, and instructional strategies may be necessary for high student achievement, but it is not sufficient. The attitudes of school administrators and teachers towards teaching and learning are

connected to the translation of teachers' skills and knowledge into higher student achievement. While we found very few differences in the content of staff development, we did find differences in school norms that guide how staff development is approached in a school. There were clear differences in the focus of staff development as perceived by teachers and administrators in the two groups of schools. The norms in higher achieving schools focus on student performance and the classroom.

These norms emerged from our examination of responses to many of the questions asked during the interviews and focus groups. We asked:

1. teachers to describe the reasons that teachers in their school participated in staff development (motivators).
2. teachers to describe any changes that resulted from the participation of teachers in their school in staff development (outcomes).
3. administrators to describe the primary factors over the past two years influencing the types of staff development in which teachers participated (primary influencing factors).
4. administrators to describe how they had evaluated the impacts of staff development in their school (evaluation of staff development).

Focus on student performance. Teachers and administrators in higher achieving schools emphasized student performance when they talked about staff development. Among their many responses, we found stark differences between those from higher and lower achieving schools (see Figure 4). For example, teachers in 41% of higher achieving schools emphasized the impact they have on students as a motivator for staff development. Teachers in only 13% of the lower achieving schools emphasized their impact on students.

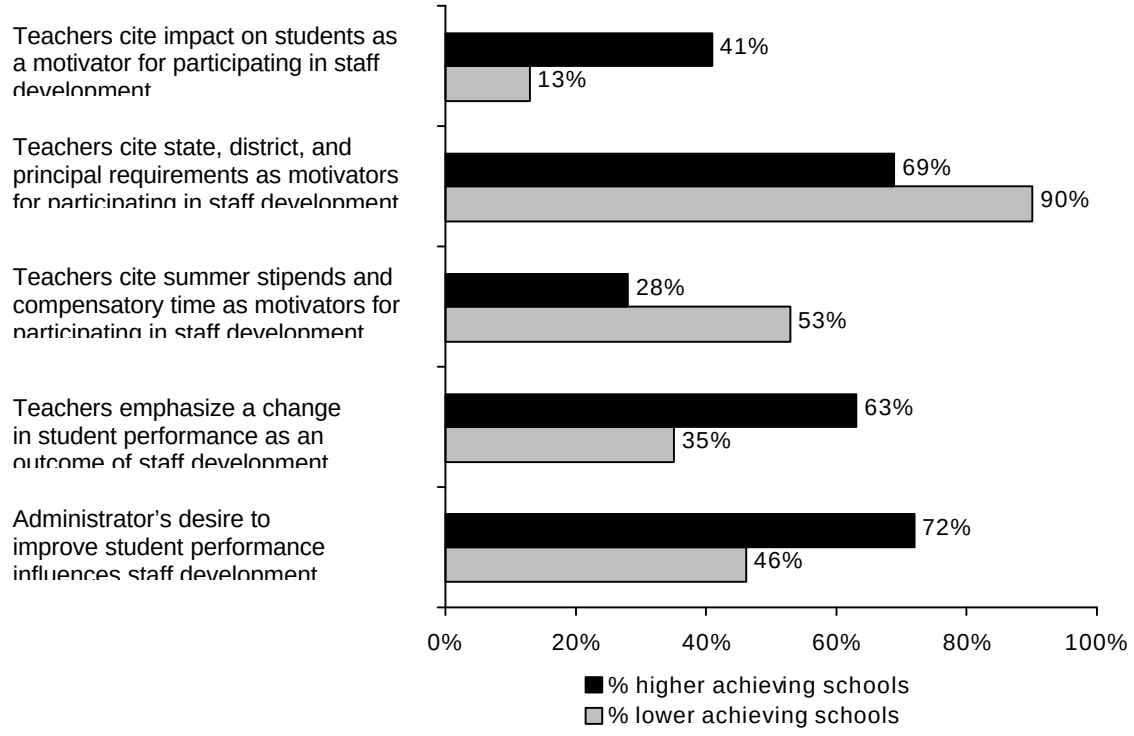


Figure 4. Higher Achieving Schools Focus Staff Development on Student Performance

A teacher in the focus group at a higher achieving elementary school exemplifies this motivation for teachers.

> We love children and the difference we can make. When we ask [the principal] about a new way of doing something, she always asks if we have assessed the need and if it impacts children [paraphrased].

In contrast, teachers in lower achieving schools emphasized external requirements as reasons for participating in staff development more often than did teachers in higher achieving schools. These external requirements included renewing teaching certificates, complying with district goals and plans, and meeting requests by the school principal. In addition, teachers in lower achieving schools emphasized reasons for participating such as summer stipends, compensatory time, and free teaching materials.

The focus on students in higher achieving schools was also reflected in the staff development outcomes that were emphasized by teachers in the focus groups. When asked about the benefits of staff development, 63% of the higher achieving schools as compared to only 35% of the lower achieving schools, cited a change in student participation, student interest, or student behavior. Other outcomes emphasized by teachers, which were no more prevalent in higher achieving schools, were improvement in teaching skills (78% of schools), use of new curriculum materials including technology (56% of schools), increased sharing and collaboration among teachers (38% of schools), and increased academic achievement among students (31% of schools).

The focus on student performance in higher achieving schools was further defined by responses from school administrators to the question about primary factors influencing the types of staff development in which teachers participated. Seventy-two percent of school administrators in higher achieving schools cited the desire to improve student performance. Only 46% of the school administrators in lower achieving schools cited the desire to improve student performance. The attitude expressed by a middle school principal demonstrates the commitment to student performance.

> Student and teacher improvement is the norm in this school. We are a learning staff focusing on how to better help students to learn. The superintendent wants us to be life-long learners and we fit right in [paraphrased].

When administrators talked about the desire to improve student performance, they not only referred to academic information such as test scores but also behavioral information such as data on students they consider at-risk.

Focus on the classroom. Higher achieving schools tend to focus on the classroom. The questions about primary factors influencing staff development and the methods used to evaluate staff development activities generated responses in higher achieving schools that focus on classroom issues. For example, when school administrators were asked to describe the primary factors that influence staff development for their teachers, 55% of administrators in the higher achieving schools mentioned a push to incorporate technology into classroom instruction compared to only 29% in the lower achieving schools (see Figure 5). Other classroom related factors that influenced the selection of staff development more in higher than lower achieving schools were textbook adoption, curriculum changes, and instructional improvement efforts. Twice the percentage of school administrators from higher achieving schools emphasized these factors.

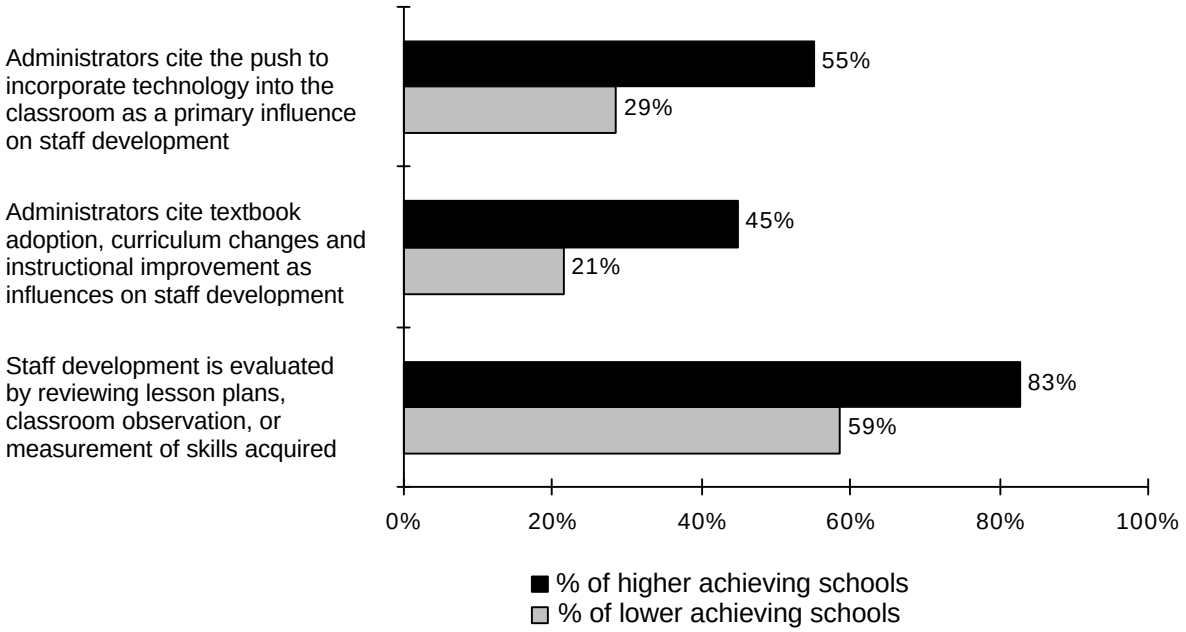


Figure 5. Higher Achieving Schools Focus Staff Development on the Classroom

When school administrators were asked how staff development activities were evaluated, their responses revealed another distinction between higher and lower achieving schools. Eighty-three percent of the administrators in the higher achieving schools talked about evaluating staff development by focusing on the skills teachers learn and their use in the classroom. This compares to 59% of the administrators in the lower achieving schools. Evaluation techniques focusing on skills and use included classroom observations, lesson plan reviews, and measurements of skills. Staff development evaluation by classroom observation includes visits by the principal, lead teacher, colleagues, and trainers. Reviews of lesson plans generally take the form of teachers and administrators looking at written lessons to see if teachers have included strategies taught in the staff development sessions. Measurement of acquired skills is primarily focused on evaluations of computer training. Table 5 provides a list of evaluation strategies mentioned.

Providers of Staff Development

The providers of staff development for both groups of schools were generally the same. Teachers received most of their training through district staff development offerings or from the local RESA. Professional conferences and college courses were also mentioned frequently in the focus groups. The differences in the sources for staff development were more related to the size of the district and its location than to the achievement of students in the school. In larger districts, district personnel, including teachers, offered much of the training whereas in the smaller districts RESA personnel were the most common providers. University personnel were most used by schools in systems that were located near a higher education institution.

Table 5. Methods Emphasized for Evaluating Staff Development Activities

Method	All Schools	Higher	Lower
1. Skill evaluation (any one of a, b, or c below)	71%	83%	59%
a. Measure participant's skills after training	2%	0%	3%
b. Observe in classroom	60%	69%	52%
c. Review lesson plans	36%	41%	31%
2. Verbal evaluation of training (a or b below)	67%	72%	62%
a. Discuss and present during department, grade level, or faculty meetings	28%	31%	24%
b. Informally discuss with colleagues and provide feedback to administration	62%	62%	62%
3. Evaluated by survey of participants' perceptions. Specific activities and/or staff development activities in general	36%	45%	28%
4. Evaluated through an assessment of student performance (e.g., student achievement, behavior)	40%	41%	38%

Access to institutions of higher education is an important avenue to continuing professional development. Except for the elementary schools in the study, the percentage of teachers with advanced degrees was greater in the higher achieving schools than the lower achieving schools. According to the Department of Education's Certified Personnel Information, 60% of the teachers in the higher achieving high schools had advanced degrees and only 49% of the teachers in the lower achieving high schools. For middle schools, the percentages were 53% versus 42%. About 46% of the teachers in the elementary schools in the study had advanced degrees.

We found that a larger percentage of teachers in higher achieving schools (69%) described their best staff development activity as being sponsored by their own school and taught by their own teachers. Forty-eight percent of teachers in lower achieving schools described their best staff development activity as being sponsored by their school. Teachers in several focus groups also related examples of colleagues from their own school providing training or a consultant being brought in to teach a particular strategy.

Time Allocation for Staff Development

Strategies for providing time for staff development activities did not differ in the two groups of schools. Almost all the schools, 97%, mentioned the summer as being used for staff development activities. Using non-teaching days--inservice or workdays--during the school year and release time from teaching during the school day was also commonly mentioned (88% and 81% respectively) by both higher and lower achieving schools. The schools used other times outside of the regular school day, such as before or after school, for staff development as well. Almost half of the schools mentioned using regularly scheduled faculty meetings to create time for staff development activities.

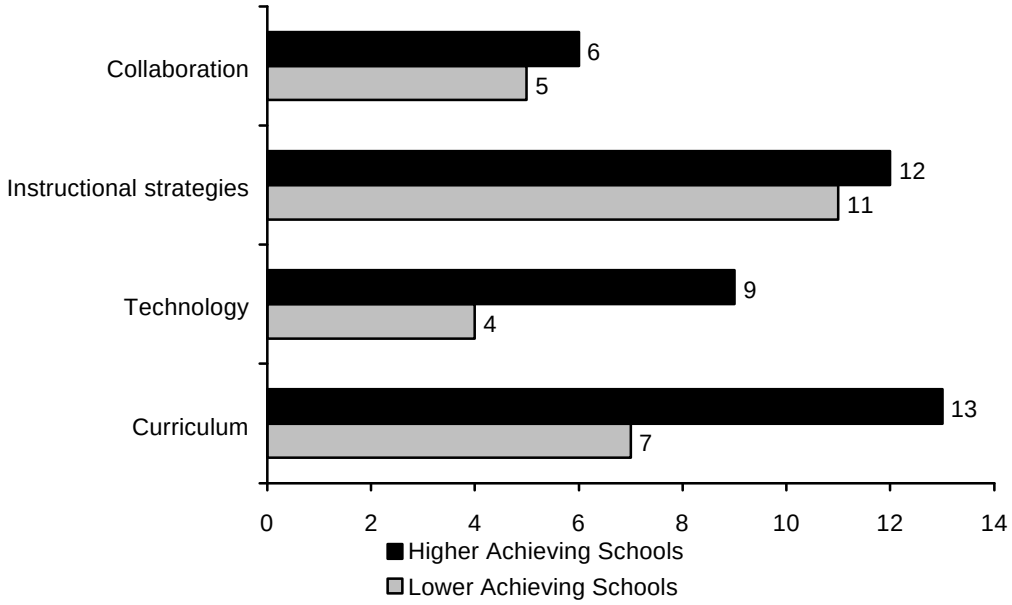


Figure 6. Comparison of Average Number of Hours per Teacher Spent on Staff Development

While the strategies for providing time were similar, the amount of time teachers in higher achieving schools spent on staff development activities was greater than the time spent by teachers in lower achieving schools. The Council for School Performance annually surveys schools on the amount of time teachers spend in staff development. Overall, the percentage of teachers in staff development training beyond the 10 non-teaching contract days is 77% for the higher achieving schools, compared to 56% in lower achieving schools. The survey also collects information on the amount of time spent on school improvement planning, curriculum, collaboration, technology, and instructional strategies. A similar percentage of staff development hours is spent on school improvement planning, 44% for higher achieving schools and 41% for lower achieving schools. Also the hours per teacher spent on collaboration and instructional strategies are similar. But there are differences in the hours per teacher spent on curriculum and technology in the two groups of schools (see Figure 6).

The Format and Delivery

The format of staff development and the training techniques used are critical to the successful transfer and implementation of new skills and knowledge into the classroom. Staff development formats, particularly a sequentially organized series of workshops supported over time, allow for the use of more productive training techniques, such as peer coaching and classroom observations. Greater varieties in training techniques in appropriate formats lead to higher levels of use of the skills and knowledge by teachers in the classroom and to positive outcomes (see Figure 7). The difference we found between higher and lower achieving schools was not in the characteristics of good staff development activities, but that ***more*** teachers in higher achieving schools reported that their best staff development activities included characteristics of good staff development.

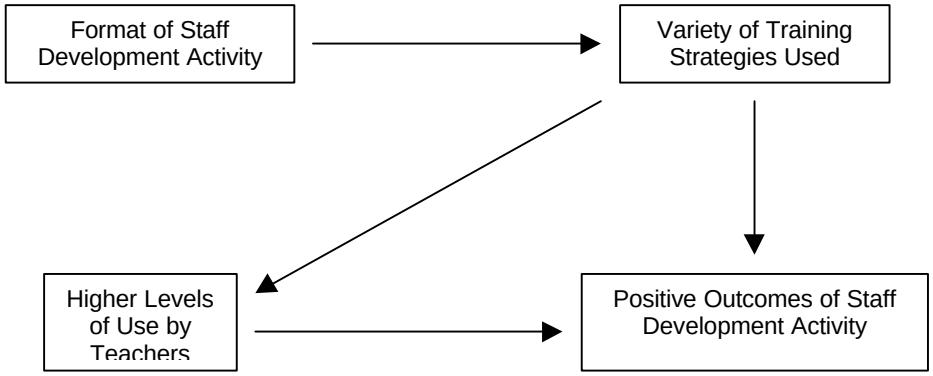


Figure 7. Impact of the Characteristics of a Good Staff Development Activity on Outcomes

On the questionnaires distributed to all teachers in the sample schools, teachers were asked to describe their best staff development activity. We were interested in the format of the training, the training techniques that were used, the teachers' levels of use of the new skills, and the outcomes resulting from the training. Those teachers whose best staff development activity was organized in a series of workshops reported a greater variety of positive training techniques being used. Table 6 lists the training techniques and the related outcomes of staff development activities asked about in the questionnaire. Series of workshops, multi-day professional conferences, and college coursework all involved a greater variety of positive training strategies than the single workshop format (see Figure 8).

Table 6. Staff Development Training Techniques Related to Outcomes of Best Staff Development Activity from Teacher Survey

Training Techniques:

1. Develop an understanding of the rationale behind the new skills
2. Demonstrate the new skills live or through a videotaped session
3. Practice skills in simulated conditions
4. Practice skills in the classroom as part of training
5. Use peer coaching and observation as part of training
6. Use peer study groups to learn about new skills
7. Provide follow up and support in implementing new skills
8. Discuss and study the change process in trying new skills

Outcomes of Staff Development:

1. Positive changes in attitude
2. Increased discussion with colleagues about new skills
3. Increased use of curriculum materials related to training
4. Changes in lesson plans
5. Improved student performance or behaviors
6. Increased learning outcomes

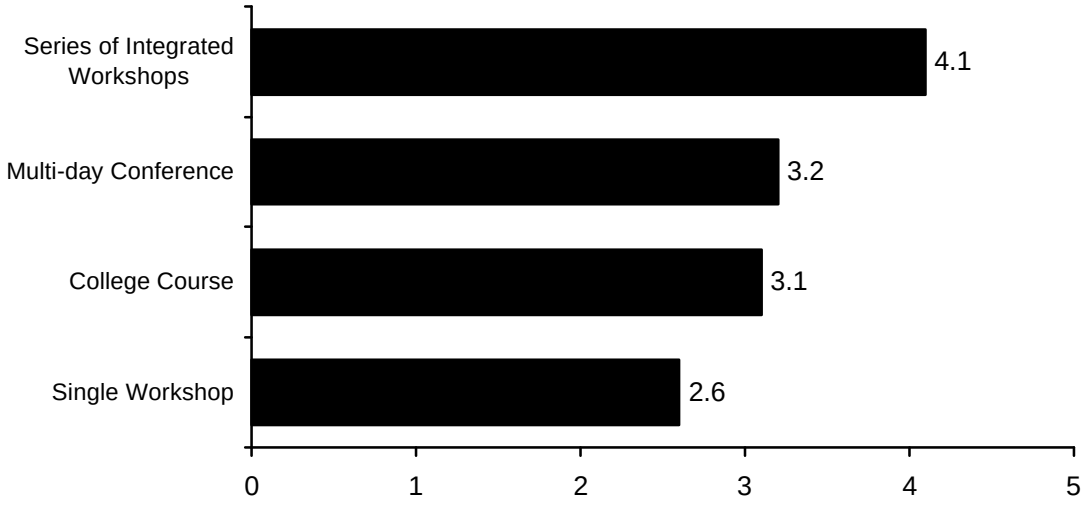


Figure 8. Average Number of Positive Training Techniques Used in Training

We asked the teachers to describe their level of use of the skills and information learned in their best staff development activity. The levels of use ranged from "I know the information, skill and strategies, but I am not using them" to "I routinely use the information, skills, and strategies" and "Working with colleagues, I am integrating their use in activities." Those teachers reporting a greater variety of training techniques also reported higher levels of use. Specific training techniques that increased the teachers level of use were (a) providing follow-up and support in implementing new skills, (b) developing an understanding of the rationale behind the new skills, (c) using peer study groups to learn about the new skills, (d) demonstrating the new skills live or through a videotaped session, and (e) studying the change process in trying new skills. Teachers reporting higher levels of use and a greater variety of training techniques also reported a greater number of positive outcomes from their best staff development activity.

Support for Staff Development

Positive staff development practices related to student achievement do not occur spontaneously in schools. Even if the commitment to students' learning is present, teachers and principals require access to knowledge and effective teaching strategies, require time and money to support improving and expanding their skills, and require leadership in setting direction and structuring the workplace to support staff development. The support for staff development at the school occurs within a context of district policies that may facilitate or inhibit good practices. In this section we highlight differences between higher and lower achieving schools in (a) teachers' perceptions of support for staff development and (b) school leadership practices guiding staff development. We also discuss (c) the role of the district office and (d) the experience and training of leadership staff in guiding staff development.

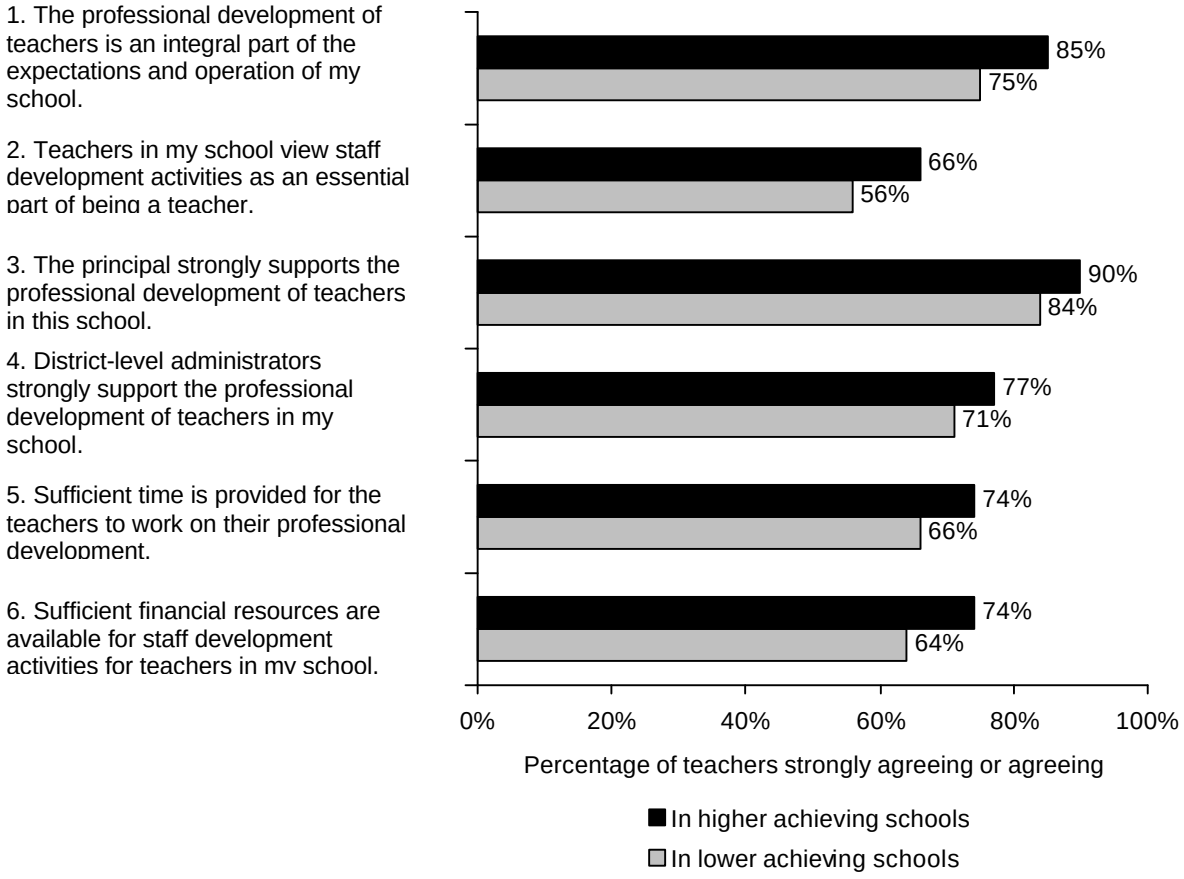


Figure 9. Support for Staff Development in Higher and Lower Achieving Schools

Teachers' Views on the Support for Staff Development

Analysis of the content, format, and delivery of staff development activities indicates that school personnel have access to positive staff development training through their central offices and local RESAs. But, do teachers think sufficient financial resources and time are available for staff development activities? Are they provided with the leadership to support their development?

On the questionnaire, we asked teachers for their opinions on the level of support for staff development (see Figure 9). Although a significant minority of teachers were unsure or disagreed about the sufficiency of resources and support, the majority of teachers in both higher and lower achieving schools thought resources and support for staff development activities were sufficient. About 70% of the teachers responding thought sufficient financial resources and time were available for staff development activities. Further, while most teachers thought their principal strongly supported their professional development (87%), they were less sure about the support of the central office and the support of their colleagues. Seventy-four percent of the teachers thought the central office strongly supported staff development and only 60% thought their colleagues viewed staff development as an essential part of being a teacher. The major difference in the two groups of schools was that a smaller percentage of teachers from lower achieving schools reported sufficient resources and support for staff development.

Leadership at the School

In our discussions with focus groups about why teachers participated in staff development activities, responses citing leadership and school direction as motivators were more prevalent in the higher achieving schools. Further, higher achieving schools had a greater capacity in terms of personnel for providing direction. An example of the steps in a particular, but typical, collaborative decision process at one higher achieving middle school serves as a good example:

> (a) Administrators attending a district-sponsored summer leadership conference examined disaggregated test data comparing students' abilities to achieve and their actual achievement levels; (b) administrators shared information with faculty at cluster meetings during planning time; (c) the school improvement design team members decided the areas for concentration and formulated a school wide goal; (d) teachers serving as subject area coordinators went to other teachers to ask, "What can we do to improve the scores in the identified areas?" (e) the staff development design team working with the school improvement design team and subject area coordinators determined appropriate training activities, secured presenters, scheduled activities, communicated all related information, and coordinated attendance, consulting with administration as needed; and (f) the staff development design team identified follow-up and evaluation activities.

In higher achieving schools, leadership from school administrators facilitated the development of goals or a plan for improvement that helped set direction for staff development (see Figure 10). Teachers in higher achieving schools said they were motivated to participate in staff development because the activities were part of their school improvement plan or because the activities would help them meet the goals that their school had set.

In 6 of the 30 higher achieving schools, the focus group of teachers emphasized the importance of their principal's support and encouragement when we asked why teachers in their school participated in staff development. While 6 of 30 is a small percentage of higher achieving schools, not one focus group in lower achieving schools discussed the support and encouragement of the principal as a motivating factor.

Higher achieving schools had a greater capacity for providing direction due to many of them having personnel with major staff development responsibilities. Sixty-two percent of the higher achieving schools had persons such as instructional lead teachers or assistant principals for instruction who had responsibilities related to staff development in the school. We also found that in these schools the principal took on more responsibilities related to focusing staff development on the school goals, finding funds and presenters, communicating opportunities, and assessing the needs for staff development. In contrast, staff development responsibilities in lower achieving schools were primarily administrative and given to a full-time teacher as an additional duty.

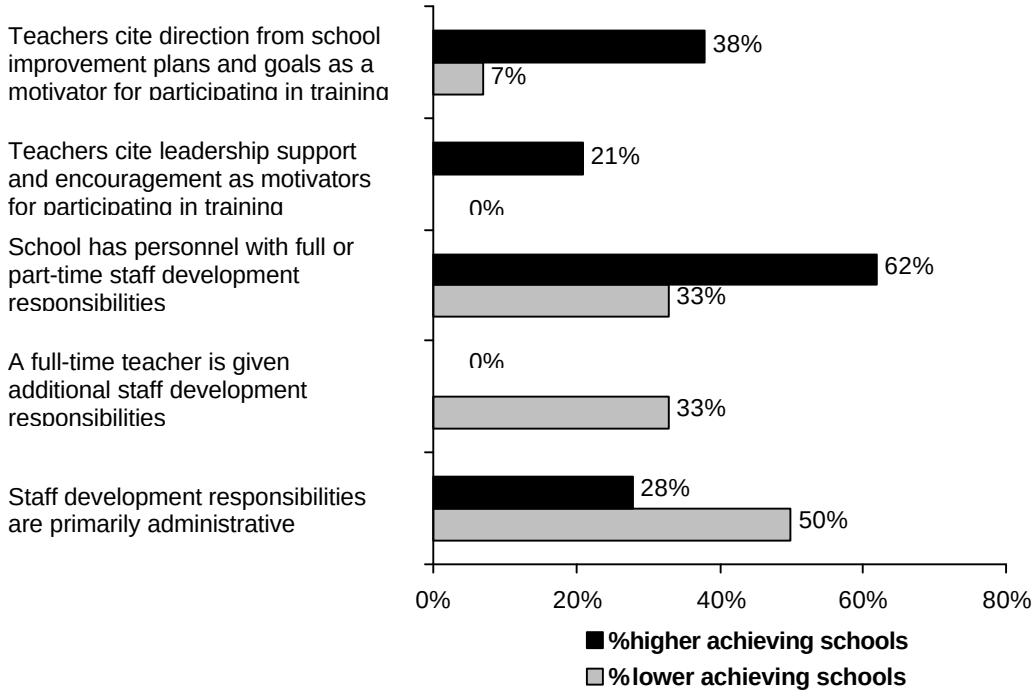


Figure 10. Higher Achieving Schools Provide Leadership for Staff Development

Role of the District Office

The higher and lower achieving schools in the study carry out their staff development practices in the context of district staff development policies. We interviewed people at the district offices because district policies can facilitate or inhibit certain staff development practices that may be associated with student achievement. While we did not design the study to look at the impact of district staff development policies on student achievement, we did find evidence that suggests that certain types of district leadership are associated with how schools make decisions regarding staff development issues. As we have previously discussed, a larger percentage of higher achieving schools use a collaborative decision-making process.

According to state guidelines, all districts have a staff development coordinator and a staff development advisory committee. The manner in which they function is a local decision. In general, the districts we visited, regardless of leadership style, emphasized assessing staff development needs at the school level. Also, all of the districts allowed the schools some discretion in decisions about expenditure of staff development money.

We categorized the type of leadership provided by the districts on staff development issues into (a) districts that provide strong direction for school improvement planning, needs assessments, and the type of staff development, (b) districts that are decentralized and service oriented providing schools with what they say they need, and (c) districts that have characteristics of both strongly directive and service oriented districts. The districts that provide strong direction tend to be large and generally have resources at the district level available to support school and district-wide staff development. The districts that are service oriented tend to be small, with support for staff development often supplied by the RESA in their area.

The eleven districts providing strong direction regarding staff development and school improvement have full-time staff development personnel. These districts usually have ongoing district-wide staff development programs that operate independently of schools (e.g., teacher induction programs or technology resource training centers). The staff development advisory councils in these districts are primarily used for communicating staff development initiatives and opportunities to the schools and assessing staff development needs in the schools. The advisory committees in some of these districts have input on the allocation of staff development money to the schools, but in most, the district staff development coordinator allocates money to the schools based on the schools' staff development or school improvement plans in addition to considering the number of teachers at the school.

The fourteen service-oriented districts that work on providing the schools with what they say they need usually have a staff development coordinator that has responsibilities in addition to staff development. They seldom have ongoing district-wide staff development programs such as induction programs or technology training but do have district-wide initiatives each year that may focus on particular areas of need (e.g., reading or block scheduling). The advisory committees in these districts are utilized to communicate from the school to the district the type of training that is needed. Assessments of staff development needs are primarily based on surveys of teachers. The district usually works in conjunction with providers of staff development, such as the local RESA, to provide the teachers with the courses they say they need. In some cases, the advisory committees are also involved in allocating staff development funds to the schools. In most cases, the district allocates staff development money to the schools based on the size of the school and not specific school improvement or staff development initiatives.

We did not find differences in higher and lower achieving schools based on how districts allocated money to schools or how districts approved school staff development expenditures. The degree of control that schools had with respect to funding decisions was not a factor of whether money was “downloaded” to the school’s budget or held at the district office, but more a factor of the degree to which districts approved staff development expenditures. Even when the district did not allocate funds to the schools, approval of school requests for a portion of the funds was almost carte blanche in many districts. In other districts, money was allocated directly to the school’s budget, but approval was still required for expenditures through approval of staff development or school improvement plans.

Anecdotally, in a few districts the staff development coordinator reported that in previous years some schools did not spend all of their funds so returning expenditures to the district enabled the funds to be available for the schools that tend to request more staff development money. In two districts that reported not spending all of their staff development money, both districts promoted site base management of staff development funds through a service orientation. In one of these districts, the district staff development coordinator reported that some of the schools "do a good job of spending their staff development money on school improvement . . . Other schools, we give them what they ask, but the principals do not encourage teachers to sign up for staff development."

Earlier, we discussed our finding that a larger percentage of higher achieving schools use a collaborative decision-making process for staff development issues. Comparing the type of decision process at the school and the type of leadership provided by the district, we found a larger percentage of the schools in districts providing strong direction in staff development to be using collaborative decision-making processes. The large majority of schools in service-oriented districts use an individualized staff development decision-making process (see Figure 11).

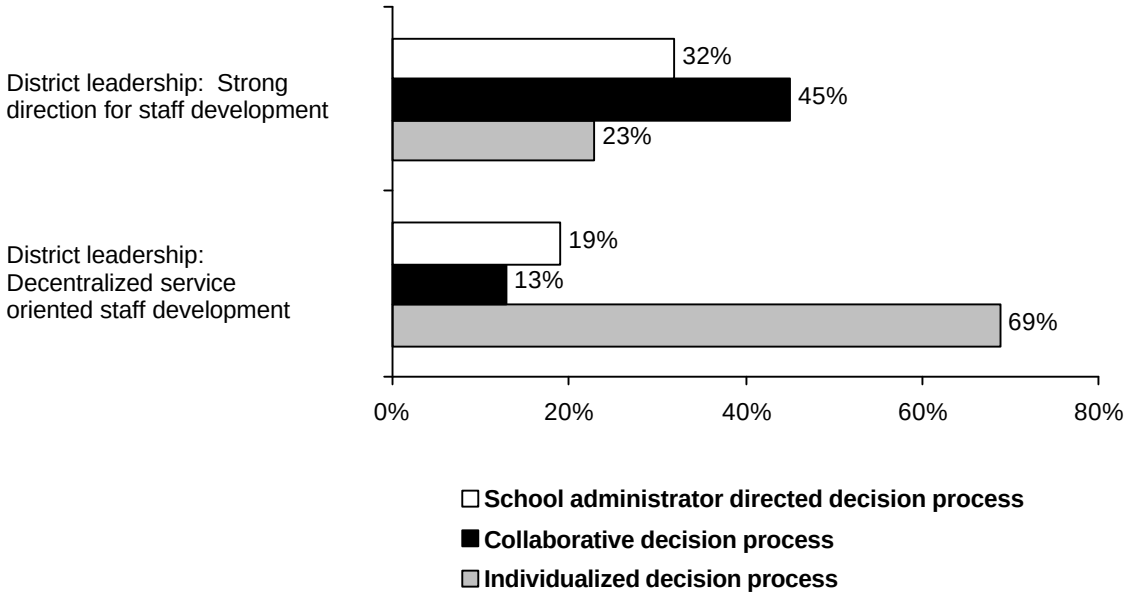


Figure 11. School Staff Development Decision-Making Process Within Types of Districts

These findings are not conclusive but they do suggest that individualized staff development decision-making processes in schools are related to district policies. The important question is, "What is the primary driving force behind district policies?" Is it a question of leadership style or is the style of leadership a function of available resources for staff development?

Small districts' staff development resources do not allow the same efficiencies as large districts. Schools with individualized staff development decision-making processes tend to be in service-oriented districts, and service-oriented districts tend to be small with limited resources. Also, staff development coordinators in these districts have many additional responsibilities and rely on support from the local RESAs. Consequently, these staff development coordinators must rely heavily on individual teachers' selecting courses from offerings by RESAs or institutions of higher education. RESAs often teach courses for teachers from multiple schools in multiple districts making school-level support and follow-up extremely problematic.

On the other hand, the tendency for strong districts to have schools with collaborative decision-making may be related to factors such as larger districts having more staff to assist with collective school activities. More collaboration may also result from schools within larger districts having more opportunities to tie their school-wide initiatives together than schools in smaller districts that rely on RESAs.

This is not to say that an individualized approach is connected only with lower achieving schools. While the larger percentage of higher achieving schools used a collaborative decision-making process, almost a third of them used an individualized decision-making process. For some teachers and some schools, a decentralized district approach combined with an individualized school approach, along with other factors related to school leadership, school focus, and individual teacher characteristics, could be a model for success.

Experience and Training of Leadership Staff in Staff Development

We found few differences in the professional experience and training of the leaders of the higher achieving and lower achieving schools. We asked about their prior professional positions, training related to guiding or planning for staff development, and involvement in professional associations. In general, the school administrators had little training in guiding or planning for the staff development of teachers. Most of their training came from one or two leadership courses required as a part of their certification. About 30% had previously held a position related to providing staff development (e.g., lead teacher, curriculum specialist, RESA consultant). About 20% had been trained as trainer for a specific type of education related training (e.g., cooperative learning, critical thinking skills).

We also asked the district staff development coordinators about their professional experience and training related to guiding staff development for educators. We found that the staff development coordinators in districts providing strong direction for staff development have more training and experience related to staff development (see Figure 12). The following professional experience and training is typical of the staff development coordinators in the districts providing strong direction for staff development.

> Prior to becoming the staff development coordinator, she was a curriculum director for elementary schools in the district and an elementary classroom teacher before that. She has an educational specialist degree in curriculum and instruction and is currently working on her doctorate in education. She is an active member and past officer of the Georgia Staff Development Council and has provided training through GSDC to new central office staff development coordinators.

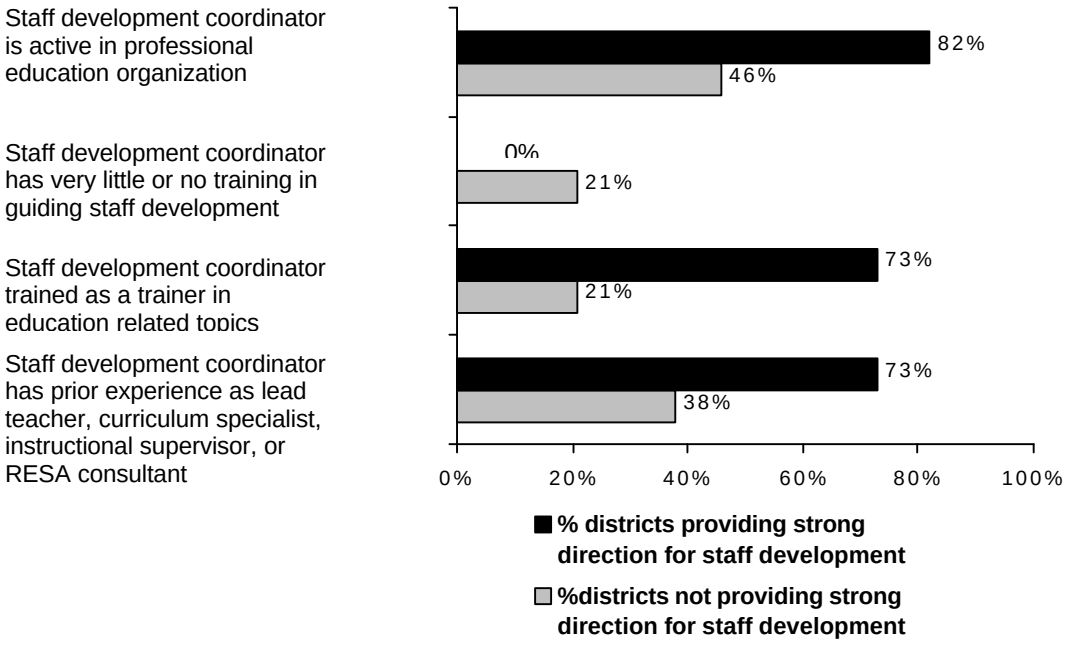


Figure 12. Experience of District Staff Development Coordinators

While the majority of the district staff development coordinators have prior experience in delivering staff development training (61%), are trained as trainers (51%), and are active in professional organizations for staff developers (58%), the largest percentage (83%) received their training through education leadership courses for certification purposes.

Georgia's Staff Development Policies

The following description, focuses on programs that are funded primarily with state money and guided by state policy decisions. In addition to state programs Georgia also operates federally funded programs that have staff development components. The primary sources of federal funds for professional development are Goals 2000 Educate America planning and implementation grants for school improvement, Eisenhower Professional Development grants for math and science instruction, and Carl Perkins Vocational Basic Grants for vocational educators. In fiscal year 1997, these federal funds amounted to approximately $8.6 million. Other federal programs have staff development or training components but are primarily for other purposes.

Georgia funds an extensive infrastructure of staff development resources for school districts. Since the Quality Basic Education Act in 1985 (QBE), Georgia has provided cost of instruction funds for staff development and professional development stipends as a part of its educational funding formula. In addition, the state supports 16 RESAs that respond directly to the needs of school districts in staff development, research and planning, curriculum and instruction, assessment and evaluation, and technology. By far, the majority of staff development activities of Georgia teachers are sponsored by the local school districts, primarily supported through QBE funding, and sponsored by RESAs, supported by direct state grants and QBE funding through local school districts.

In conjunction with a funding formula that directly supports staff development, Georgia's Quality Basic Education Act of 1985 created the Georgia Education Leadership Academy housed in the Georgia Department of Education. The Academy conducts seminars, symposia, workshops, and summer institutes throughout the state. Currently, the Academy is operating eight programs. Teacher conferences, the Mentor Teacher Program, the High Performance School Leadership Team Institute, and the Governor's School Leadership Institute focus directly on improving teachers' skills, student achievement, and school improvement. The remaining programs are leadership programs for school administrators, school board members, and emerging leaders in schools and districts.

Georgia's support of professional development facilitates renewing teaching certifications. Currently Georgia teachers must earn ten staff development units, SDUs, (100 contact hours of instruction) or ten college credits every five years to renew certification. The state does not specify in what areas the SDUs or college credits must be earned to renew certification.

Consistent with its philosophy of promoting local control of educational policy decisions, Georgia provides only general guidelines for staff development training supported by cost of instruction staff development funds and professional development stipends. To coordinate the professional development of its personnel, school districts are required to develop an annual comprehensive staff development plan, to appoint a district staff development coordinator, and to appoint a staff development advisory committee. The advisory committee assists in needs assessment, determination of priorities and content of activities, and the evaluation of staff development plans. The staff development plan is reviewed and approved by the Department of Education (Georgia code 160-3-3-.04).

The responsibility for developing educational goals, deciding how to use staff development funds to address these goals, and deciding what training qualifies for certification renewal credit is left to the local school district. Georgia's guidelines emphasize that school districts' comprehensive staff development plans address the assessed needs of school personnel according to instructional effectiveness and professional development. Staff development is to address the needs of beginning teachers in their induction phase, the needs of teachers with specific weaknesses that require development, and the needs of teachers that desire to enhance their professional skills. Further, staff development plans are to provide educational priorities, program objectives, types of activities, and procedures for formative and summative evaluations. Georgia also provides guidelines for an optional certification renewal plan for determining what training qualifies for certification renewal SDUs. These guidelines emphasize student goals, on-the-job verification procedures for competencies, and mastery verification to receive SDU credit.

In support of these guidelines, the Staff Development Unit of the Georgia Education Leadership Academy encourages local schools and school districts to identify their needs based on information on student achievement and teacher competencies, and to seek or develop appropriate training. A primary role of theirs is to provide technical services, professional networking, and support for schools in developing comprehensive staff development plans and related school improvement planning. In so doing they emphasize school-focused staff development aimed at improving instruction and student achievement.

Georgia's Investment in Staff Development

For fiscal year 1997, Georgia appropriated about $35.6 million of state money to support its commitment to the professional development of educators. About $33.7 million was allocated to school districts in cost of instruction staff development funds and professional development stipends. The funds are to pay for teacher release time for training, consultants, training material, registration fees, cost of approved college courses, and stipends paid to participants in training activities. The remaining appropriations of the $35.6 million were for the Mentor Teacher program ($1.25 million) and for Georgia Educational Leadership Academy programs ($626,000).

In addition to the money appropriated for staff development, Georgia appropriated $9.7 million to support the 16 RESAs in the state. Although RESAs are a primary provider of staff development training, not all of this money is for staff development. RESAs have additional responsibilities in providing support for research and planning, curriculum and instruction, assessment and evaluation, and technology.

Since 1994, appropriations for cost of instruction staff development funds, professional development stipends, and RESAs have increased annually (see Figure 13). As a percentage of the Department of Education's total budget, appropriations for staff development, stipends, and RESAs has remained relatively constant since 1990, at about 1%.

In addition to state allocations, many local school districts use local money to supplement staff development expenditures. In fiscal year 1997, local school districts contributed approximately $5.1 million, or 15 cents for every cost of instruction and stipend dollar spent by the state on staff development.

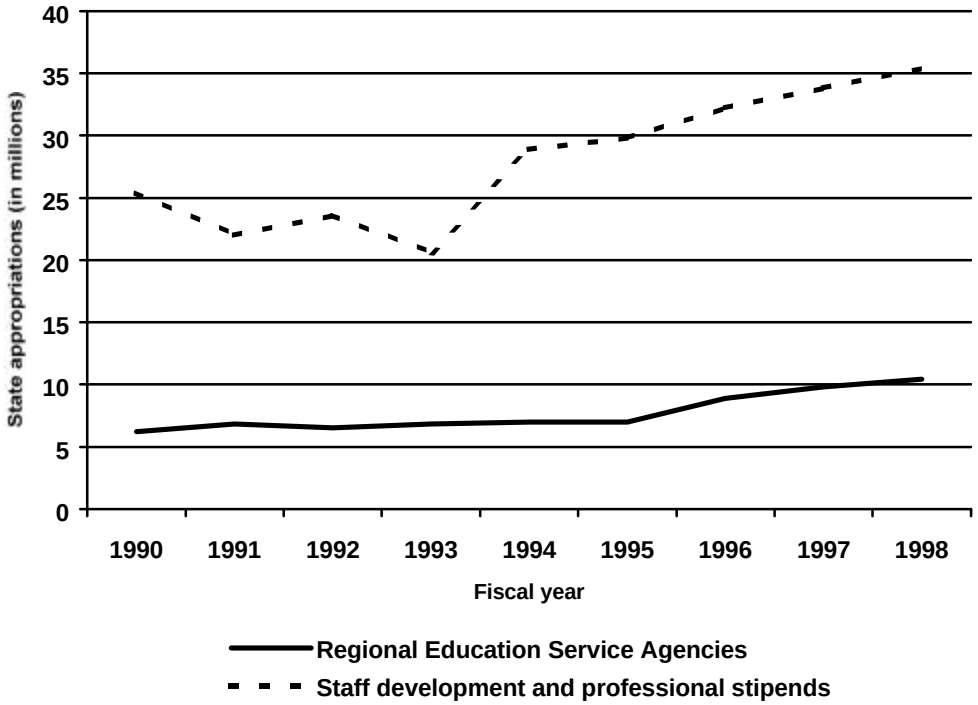


Figure 13. State Appropriations Supporting Staff Development

Georgia financially supports several voluntary school renewal and improvement initiatives that have staff development components. Charter Schools, Next Generation Schools, and Pay for Performance require that schools address how their staff development plans fit into broader school goals, some of which must focus on student achievement. In terms of state money appropriated, these programs are small in comparison to cost of instruction staff development funds and professional development stipends. In fiscal year 1996-97, Pay for Performance was appropriated $3.3 million, Next Generation Schools $500,000, and Charter Schools $55,000.

Recommendations

Research on effective staff development and change, available to educators for many years, has been quoted and discussed but has not received widespread and serious use. The Georgia Department of Education resource manuals summarizing information and procedures from research on staff development are provided for staff development coordinators in the state, but the materials have not provided sufficient stimulus to promote a significant change in practice across the state. Many educators at the state, regional, school district, and school levels are familiar with the research on effective staff development. Nevertheless, we still find staff development programs that are not focused on student performance and the classroom, that do not involve the faculty in decisions and implementation, that do not incorporate training strategies that promote improvement in student and teacher performance, and that do not have sufficient resources or support from school leadership.

The findings in this study relating certain staff development practices to student achievement backed up by the support in the literature for these practices offer compelling reasons for stakeholders at all levels to address these practices when making decisions about staff development. We have summarized our findings in the form of guidelines for practitioners and policy makers to consider when making decisions regarding staff development. After presenting the guidelines we offer three general recommendations based on the guidelines.

Guidelines for Staff Development Based on Correlates with Student Achievement:

The five questions below represent the characteristics related to how staff development was provided in the higher achieving schools in Georgia. Each question is followed by a series of conditions that, if present, would likely lead to a yes answer to the question.

Guideline 1: Is leadership for staff development provided in the school?

- School improvement plans and goals provide direction for staff development.
- Strong support and encouragement are provided for staff development by school administrators.
- The school has a part or full-time staff member with multiple staff development responsibilities.
- Sufficient resources, including time and funding, are available to support staff development in the school.
- Staff development activities are an integral part of the operations and expectations of the school.

Guideline 2: Is the faculty collectively involved in staff development decisions and implementation?

- Teachers have a responsibility for staff development planning decisions, delivery, and implementation through departments, grade level teams, cluster teams, and building leadership teams.
- Training in adult collaborative skills occurs regularly for teachers in the school.
- The school uses a collaborative decision process for directing staff development activities.
- The collaborative decision process emphasizes results as measured by changes in student performance and changes in teacher use or skills.
- Teachers view participation in staff development as an essential part of being a professional.

Guideline 3: Is staff development focused on improving student performance?

- A desire to improve student performance drives the selection of staff development.
- Teachers participate in staff development in order to have an impact on students.
- Data on student performance are used in planning staff development activities.
- Results of staff development are monitored by changes in student performance.

Guideline 4: Is staff development focused on the classroom?

- The desire to improve curriculum and instruction drives the selection of staff development.
- The desire to incorporate the use of technology in instruction influences the selection of staff development.
- The results of staff development are measured by classroom observations, review of lesson plans, and measurement of acquired skills.

Guideline 5: Are training strategies that promote positive outcomes used in staff development activities?

- The format for staff development is organized in an ongoing series of workshops.
- An understanding of the rationale and principles behind the new skills is provided.
- New skills are demonstrated live or through videotape.
- Sufficient guided practice is provided in the training.
- Peer coaching/observation is part of the training.
- Peer study groups are part of the training.
- Sufficient follow-up and support for implementing new skills are provided.
- The change process is studied and used to guide initiation, implementation, and institutionalization of innovations in the school.

Based on the findings in this study, we make three primary recommendations for improving the impact of staff development on schools in Georgia. The first speaks directly to the condition of low achieving schools. The second speaks to the condition of staff development in the state. The third speaks to increasing the use of research-based staff development.

Recommendation #1: Improving Low Achieving Schools

The thirty consistently low achieving schools are not the only troubled schools in the state. And it is probable that the findings here apply to a great extent to many of those that were not in the sample. Our primary recommendation is to take steps to enable the low achieving schools to become more like the high achieving schools with respect to the conduct of staff development and school improvement. These steps include:

- More active leadership by principals and lead teachers (See Guideline #1)
- More collective faculty involvement in assessing and addressing areas for improvement (See Guideline #2)
- A greater focus on student learning (See Guideline #3)
- A greater focus on classroom impact—positive changes in curriculum and instruction (See Guideline #4)
- Better preparation to implement the content of staff development through training strategies that promote high levels of classroom use and positive outcomes (See Guideline #5)

The primary mechanism available to address Recommendation #1 is to generate intensive staff development for principals and lead teachers in low achieving schools. The larger district offices and the RESAs are probably the appropriate providers of this staff development. If they do not currently have the providers who can offer that type of service, then a state or regional initiative to identify and train a cadre of providers needs to be instituted (see Recommendation #2).

Recommendation #2: Increasing Capacity for Staff Development

The staff development of teachers in both lower and higher achieving schools consists mostly of offerings by the large district offices and RESAs. Those offerings cover a wide range of topics and are delivered chiefly through workshops offered on staff development days, during the summer, and after school hours. Follow-up to ensure implementation is largely a function of the schools rather than the providers. The large district offices and the RESAs—the primary providers of staff development in Georgia—need to help build capacity in schools so that implementation will occur.

We recommend that the state initiate a program of staff development for the providers of staff development. Such a program would:

- Be designed to ensure that every large district and all RESA units have personnel that can provide intensive, long term service to school faculties (See Guideline #5)
- Be concentrated on curricular and instructional changes that have a solid foundation in research (See Guidelines #2 and #3)
- Be constructed to design a workplace where whole faculties work together to generate higher levels of achievement by implementing changes in curriculum and instruction. (See Guidelines # 1 and #2)

Recommendation # 3: Using Incentives to Increase the Use of Research-Based Staff Development

For the greatest potential impact on student performance, district and school administrators need to structure incentives for staff development that focus on student performance, focus on the classroom, and collectively involve a school's faculty. Some strategies for increasing participation in research-based staff development are:

- Use of Guidelines 1-5 by district administrators to approve staff development that qualifies for SDU credits for renewing certifications.
- Use of Guidelines 1-5 by district and school administrators to approve staff development that qualifies for stipends and cost of instruction funds.

The research literature on staff development and school improvement supports the position that major changes in student achievement occur when the content of staff development represents an upgrading of curriculum and instruction—the kind of repertoire expansion not common in most schools—and is designed to generate full implementation. Staff development that will have an impact on student achievement requires long-term programs (that reach teachers regularly through the school year), not just one-shot sessions. It requires the theory, demonstration, practice and feedback, not just a lecture on the strategy. It requires collective study of student learning, not just individual reflection on implementation. And it requires leadership from administrators to ensure that the workplace is structured to support ongoing collaboration about improving teaching and learning.

APPENDIX A

Methodology

Selection of Schools

In addition to the teaching skills, knowledge, and motivation of a school's faculty, variations in student achievement across schools can be explained by student background factors such as parents' educational levels, parents' economic resources, and racial backgrounds. Teachers and principals face different challenges in schools with students from different socio-economic backgrounds.

Parents' educational expectations and their financial ability to provide educational resources in the home have a powerful influence on student achievement. Figure A1 is a plot of the percentage of a school's students that are eligible for free or reduced priced lunches with the percentage of a school's students meeting the state goals on the 1995-96 CBAs. The schools with a smaller percentage of students eligible for free lunches have a larger percentage of students meeting state goals on CBAs.

Social factors such as racial composition also have an influence on the student achievement in schools. Minorities, especially African Americans, have historically been at an economic and educational disadvantage. The legacy of racial discrimination has meant inequalities in the preparation and support for education among African Americans. While the racial composition of the school does influence student achievement in the school and we do take it into account, its influence on student achievement is much less than economic factors.

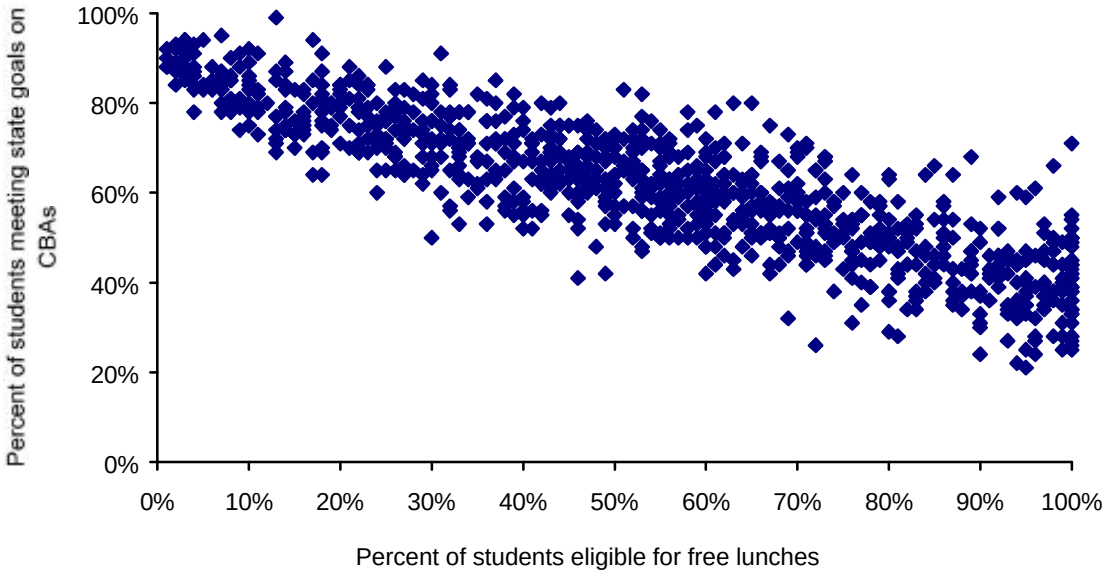


Figure A1. Relationship of School Performance Based on Student Achievement and Economic Background of Students

We collected information from 60 public schools in Georgia and their corresponding school district offices. We divided the sample of schools evenly among schools with grades 3 and 5, schools with grade 8, and schools with grade 11. We selected the schools based on student achievement, social and economic characteristics of the students, and their location in Georgia. We chose an equal number of higher and lower achieving schools based on the Council for School Performance's student achievement indicators for schools (see Table 2 in text).

To rank schools' performance according to student achievement, we created a composite score for a school's overall academic performance for each of three consecutive school years. We used principal-axis factoring (replacement of diagonals of the correlation matrix with estimates of communalities) of the student achievement indicators listed in Table A1. The Anderson-Rubin method for computation of factor scores with a mean equal to zero and a standard deviation of one was used to compute schools' overall academic performance. We did a separate factor analysis for schools with grades 3 and 5, schools with grade 8, and schools with grade 11. Complete information on curriculum based assessments was available for three years for 916 schools with grades 3 and 5, and 279 schools with grade 8. Graduation tests for three years was available for 289 schools with grade 11.

To adjust the composite score for a school's overall academic performance for student socio-economic characteristics, we used ordinary least squares regression, regressing the composite score on the percent of student's eligible for free or reduced price lunch and the percent of white students. We saved the standardized residuals as a measure of a school's overall academic performance adjusted for student socio-economic characteristics. We did three regressions, one for each school year for each grade level group.

Using the standardized residuals, we ranked the schools from highest to lowest overall academic performance. The schools were ranked within grade level groups for each of the three school years. Schools that were in the top or bottom quarter in each of the three years were candidates for selection. For these schools, we averaged the standardized residuals across the three years and ranked them a second time according to their average standardized residuals. Starting from the top and bottom of the list, we chose schools that showed stability across the three years in enrollment (no more than 15% change), grade levels, racial composition (no more than 5 percentage points change), and percent of students eligible for free or reduced price lunch (no more than 15 percentage points change). We examined the geographic distribution of the selected schools to make sure urban and rural regions of Georgia were represented. If a school refused to participate in the study, we chose the school with the next closest ranking to replace it

For the survey of teachers in higher and lower achieving schools, we distributed approximately 2,800 questionnaires to teachers in the 60 schools. Forty-one percent of the teachers returned surveys to us. Teachers from higher achieving schools, elementary schools, and schools with a majority of white students returned the questionnaires at a higher rate. Table A1 contains a breakdown of response rates by school characteristics.

Collecting Information from the Schools

In the first phase of data collection, we collected information about staff development from teachers and administrators in the schools and district offices. We used interviews, focus group discussions, questionnaires, and document reviews. A member of the research team visited the school without knowledge of whether the school was a higher or lower achieving school. The team member interviewed the principal and, in about a half of the cases, other leadership personnel, such as instructional lead teachers and assistant principals for instruction who had staff development responsibilities. While at the school, the member of the research

team spoke with 6 to 10 teachers in a focus group discussion and left questionnaires for all eachers in the school to complete. For the interview, discussions, and questionnaires, we defined staff development activities as:

Table A1. Response Rates for Teacher Survey

Groups of Teachers	Response Rates
All teachers	41%
Teachers from Higher Performing Schools	46%
Teachers from Lower Performing	36%
Teachers from Elementary Schools	48%
Teachers from Middle Schools	43%
Teachers from High Schools	34%
Teachers from Schools w/ Majority of White Students	53%
Teachers from Schools w/ Majority of Non-White Students	30%
Teachers from Schools w/ Majority of Low SES Students	38%
Teachers from Schools w/ Majority of High SES Students	43%

> An organized learning opportunity for teachers to acquire knowledge and skills to help them become more effective teachers. Staff development activities may consist of activities such as a single workshop, a conference, a workshop series, summer institutes, college coursework, or organized peer coaching and study group sessions. A staff development activity may be sponsored by many entities including your school, the school district, Regional Education Service Agencies, state agencies, teacher academies, colleges, or professional networks and organizations.

For each of the schools, the researchers also gathered information from the school districts' staff development coordinators, personnel directors, and finance directors. Information collected from central office staff in the districts where the schools in the sample were located helped describe the context for the staff development the teachers received. The directors of staff development, personnel and finance provided information about their areas that gave a broad picture of the policies and procedures influencing staff development for teachers in the school. The district-level pictures that emerged show many similarities in the way districts operate their staff development programs. The site visits began in September 1997 and were completed in December 1997. The interview questions and the teacher questionnaire are in Appendices B and C, respectively. Some of the results that emerged from analysis of the interview responses are in Appendix D.

Coding and Analysis of Interview and Focus Group Information

Following the visits to the schools, the researchers used their notes and the tape recordings of the interviews to write summaries of the responses. The researchers included verbatim quotes and paraphrased examples to describe the responses of the informants. Researchers reviewed the summaries and discussed factors that emerged from the responses. For each area of questions asked a list of staff development factors was developed. Each of the school summaries was then reviewed again and coded according to whether the factors were present.

We used a chi square to test whether certain factors were more predominant in higher achieving schools than lower achieving schools; in elementary, middle, or high schools; in schools with a majority of white students than schools with a majority of non-white students; and in schools with a majority of low SES students than schools with a majority of high SES students. Given the exploratory nature of the research, we selected a $p<.10$ level of statistical significance.

Analysis of Survey Information from Teachers in Higher and Lower Achieving Schools

To investigate differences in the characteristics of staff development activities in which teachers from higher and lower achieving schools participated, we asked a series of questions on the teacher questionnaire about the respondent's self-defined best staff development activity in the past two years. The questions covered the format of the staff development activity, the training techniques in the activity, the respondent's level of use of the skills taught, and the respondent's perception of the resulting outcomes from the training. We used ordinary least squares regression in an analysis of variance design to model the relationship among staff development formats, training techniques, levels of use, and staff development outcomes. We restricted our analyses to those best staff development activities that related to teaching strategies, content knowledge, curriculum, assessment strategies, or discipline (training focused on the classroom). We selected $p<.05$ level of statistical significance.

We first modeled the relationship between the format of the staff development activity and the number of training techniques used controlling for the school level of the school in which the respondents taught and whether the respondent taught in a higher or lower achieving school.

Our second model examined the relationship between the training techniques used and the levels of use of the skills by the respondent controlling for the grade level of the school in which the respondents taught, whether the respondent taught in a higher or lower achieving school, and the length of time since the training was completed. We operationalized the levels of use with a scale (USE) that ranged from 1 to 6 corresponding to the following responses:

1. I know the information, skills, or strategies but I am not using them - USE=1
2. I am preparing for my first use of the information, skills, or strategies - USE=2
3. I am attempting to use the information, skills, or strategies but I am not yet comfortable using them - USE=3
4. I routinely use the information, skills, or strategies - USE=4
5. Working with colleagues, I am integrating their use in activities - An additional point is added to USE based on 1 - 4
6. I am reevaluating their use and seeking modifications to be more effective- An additional point is added to USE based on 1 - 4.

The third model examined the relationship between the training techniques used, the levels of use of the skills by the respondent, and the number of reported outcomes resulting from the staff development activity. Once again we controlled for the grade level of the school in which the respondents taught, whether the respondent taught in a higher or lower achieving school, and the length of time since the training was completed.

To determine differences in the level of support for staff development and school climate, the teacher questionnaire contained 25 statements to which respondents were asked their level of agreement on a five-point scale (strongly agree, agree, unsure, disagree, or strongly disagree). Higher levels of agreement with the statements indicated higher levels of support for staff development and a better school climate. We collapsed strongly agree and

agree into a category and unsure, disagree, and strongly disagree into a second category. We used a chi-square to test whether respondents from higher achieving schools were more likely to agree with the statements than respondents from lower achieving schools. We selected a $p<.05$ level of statistical significance. For all statements respondents from higher achieving schools were more likely to agree with the statements than respondents from lower achieving schools.

APPENDIX B
Interview Questions

Principal Interview

Section 1: Experience And Training
1. How long have you been the principal?
2. What was your work experience prior to being this school's principal?
3. Are you an active member of any state or national professional associations? Which ones?
4. Do you have any training, education courses, or experiences with providing staff development training? Describe.

Section 2. Staff Development Responsibilities And Priorities
1. What is your view of what staff and professional development is and what its role is in your school?
2. What are your responsibilities for staff development in your school?
3. Does anyone else in your school have staff development as a primary responsibility? What is their position and responsibilities?
4. In general, who set the priorities about which teachers receive staff development training and the type of staff development they receive?
5. What have been the primary factors over the past two years influencing the types of staff development in which teachers have participated?

Section 3. Evaluation Of Staff Development Activities
1. How do you evaluate the impacts of the staff development training of your teachers?

Section 4. Budget Control Of Staff Development Funds
1. Over what funding sources and for what staff development uses does your school have control?
2. Thinking about last year, from what sources did the money your school spent on staff development come? What proportion came from each source?

Section 5. Time Management And Staff Development Activities
1. How do you manage time for staff development activities?

Section 6. Staff Development For Beginning Teachers
1. What do you do for the training of beginning teachers at your school?

Section 7. Staff Development And Teacher Evaluation
1. How do teacher evaluations play a part in staff development decisions in your school?

Section 8. Selection And Hiring Of Teachers
1. Who at the school interviews a job candidate? What role do they have in the decision process?
2. What are some of the characteristics you seek in hiring a new teacher?

Teacher Focus Group

Section 1: Staff Development Content/Topics

1. Think about the staff development content covered over the past two years. What topics or areas have been addressed?

Section 2: Process - The How Of Staff Development

1. We've spent several minutes talking about the topics of staff development, let's switch now to talk about how staff development is done. I want you to think about the staff development activities in which teachers have participated and describe how the training was conducted. Were activities collaborative? Did teachers learn in teams or study groups? What type of follow-up has been available?
2. As a result of teachers participating in staff development, have you seen any changes in the classroom practices? Have you seen any changes in curriculum materials? Lesson plans? Have you seen any changes in learning outcomes of students?

Section 3: Context - Role Of Staff Development In Culture Of School

1. How were decisions regarding staff development made? How was it decided who participated in staff development, the content of the staff development, or the scheduling of staff development? Are student test scores considered?
2. How much time over the past two years was spent on staff development for the faculty? Were there monthly activities? Activities one or two times a year?
3. What are the reasons why teachers participate in staff development? Reasons for lack of participation?

School District Staff Development Coordinator Interview

Section 1: Experience And Training

1. How long have you been in the staff development coordinator position?
2. What was your prior experience to being the staff development coordinator?
3. Are you an active member of any state or national professional associations? Which professional associations?
4. What other training, courses, or experiences have you had in providing staff development? Describe.
5. How would you define staff development and what is its role?

Section 2. Personnel Support For Staff Development

1. What are the responsibilities of this office with regard to staff development in the district? Please use specific examples to illustrate.
2. Do you have other responsibilities besides those related to staff development? How much time of your time is devoted to staff development responsibilities?
3. Including yourself, but not clerical staff, how many central office staff have at least half of their job responsibilities related to staff development activities?
4. Do the schools in your district have instructional lead teachers, assistant principals for instruction, or other personnel with primarily staff development responsibilities? Which schools have a staff development person? Why only these schools?

Section 3. Staff Development Content And Process

1. For each of last year's (Sept. 1996 – August 1997) staff development offerings, offered through the district office, I want to know what the topic was. Do you have a catalog or list of offerings that we can use to help us organize this discussion? Were there other staff development offerings besides what the district offered? Offerings from your local RESA?
2. Does your district have a program for training beginning teachers? What are the courses and activities?

Section 4. Staff Development Priorities

1. Who sets the priorities about which teachers receive staff development training and the type of staff development they receive?
2. What has been the primary factor(s) over the past couple of years influencing the types of staff development in which teachers have participated?

Section 5. Budget Control Of Staff Development Funds

1. Over what funding sources and for what uses does the district retain control of staff development funds?
2. What proportion of state staff development funds (cost of instruction and stipend funds) is allocated to schools? What proportions are allocated to other activities?

Section 6. Time Management Of Staff Development Activities

1. Does the district have any policies with regards to the management of the time provided for staff development activities?

Section 7. Evaluation Of Staff Development Activities

1. How are the staff development offerings your district (RESA) provides evaluated?

Personnel Director Interview

Section 1: Recruiting Of Teachers

1. Does your office actively recruit teachers? Describe what you do.
2. Are there specific types of teachers that you tried to recruit for this school year?

Section 2: Hiring Process

1. Does the school district have minimum criteria for selecting job candidates for interviews? What are these?
2. Who usually interviews the job candidate for teaching positions?
3. Are there minimum district criteria the applicant must meet during the interview process?
4. Who makes the final decision to recommend hiring a teacher? Describe what type of input each of the interviewers has?

Section 3: Training For Beginning Teachers

1. Does your district have a training and orientation program for beginning teachers? What is involved in the training and orientation?

Section 4: Recruiting Process For Principals

1. When a school has a vacancy for a principal, how are potential candidates identified?
2. Are there specific background characteristics desirable for a school principal? Explain.

Section 5: Hiring Process For Principals

1. Does the school district have minimum criteria for selecting job candidates for interviews for principal positions? What are these?
2. Who interviews the job candidate?
3. Are there minimum district criteria the applicant must meet during the interview process?
4. Who makes the final decision to recommend hiring a principal? Describe what type of input each of the interviewers has.

Section 6: Labor Market For Teachers

1. How many teaching positions in the district were filled with new applicants for this school year?
2. What percent of these new hires were beginning teachers?
3. Approximately, how many applications did you have for these positions?
4. Approximately, what percent of the applications were from beginning teachers?

Financial Information Request

Summary of Expenditures for Staff and Professional Development:
Fiscal Year 1997 - July 1, 1996 - June 30, 1997

Instructions:

The Council for School Performance is interested in knowing the proportion of staff and professional development expenditures in FY 1997 that came from federal, state, and local sources of revenue. In providing staff development expenditures, the following items are to be included:

Release time for teachers to participate in staff development activities
Purchased professional and technical services for instructors and consultants
Travel for staff development purposes
Instruction equipment and computer hardware required for staff development
Training materials, supplies, books, and software required for staff development
Reimbursement for registration fees for approved conferences and workshops and tuition, textbooks, and fees for approved college courses

Note:
The new FY 1998 Fund Codes that appear in the following expenditure requests were not used to report FY 1997 expenditures. However, they are included to provide a more detailed description of the FY 1997 expenditures that we are requesting (see Definitions)

State Funds – Cost of Instruction and Professional Development Stipends, FY 1997
Enter the total expenditures for staff and professional development for the district.

1. Cost of Instruction $_____
   Do not include funds transferred from PDS
   Fund Code 100-1210-2210-

2. Professional Development Stipends $_____
   Fund Code 100-1220-2210-116

   Employer Costs $_____
   Fund Code 100-1220-2210-200

   Transferred to Cost of Instruction $_____

3. Of the total Cost of Instruction and Stipend expenditures,
   how much were expended by the schools in the district? $_____

II. Federal Funds, FY 1997

Federal funds support staff and professional development through many programs. Many of these programs are flexible with regards to staff development expenditures; not all of the money

is specifically earmarked for staff development. Listed below are some of the larger programs. This is not a complete list. Please include other programs in your estimate.

PROGRAM	FUND CODE
Goals 2000 Professional Development Grant	410-1774-2210-
Title II – Eisenhower Professional Development Grant	414-1784-2210- 414-1786-2210- 414-1788-2210-
Vocational Education Tech Prep	406-3060-2210- 406-3061-2210- 406-3217-2210- 406-3117-2210-
Special Education	404-2832-2210-

Enter the total staff and professional development expenditures for the district from federal sources of funds. If the exact figure is not available, please provide a good estimate.

1. Federal Funds $_____

III. Local Funds, FY 1997

Enter the total staff and professional development expenditures for the district from local sources of funds. If the exact figure is not available, please provide a good estimate.

890 Local Funds $_____

642 – Books (other than textbooks) and Periodicals
730 – Purchase of Equipment (other than buses and computers)
734 – Purchase or Lease-Purchase of Computers

APPENDIX C

Teacher Survey

The Council for School Performance's Survey on the Professional Development of Georgia's Public School Teachers

The Council for School Performance was appointed by the Governor and the Georgia Legislature in 1993 and given the mission of providing impartial and accurate information regarding the performance of public schools and lottery funded education programs.

A preliminary analysis of the Council's 1995-96 School System Performance Indicators supported the common sense notion that better prepared teachers and higher student academic performance go hand in hand. Because the Governor's Office expressed a need for additional information, the Council is undertaking a detailed study on staff development practices in Georgia's schools. The results from this study will be shared with state and local policy makers.

For the Council to present an accurate description of staff development practices, it is important that you complete and return the survey. You are a faculty member of one of a select group of schools participating in the study. *We need your input.*

You may be assured of confidentiality. We ask that you give the name of your school but we do not want your name on the survey. After completing the questionnaire, use the self-addressed envelope to return it directly to the Council for School Performance. If you have any questions or comments please call Steve Harkreader at (404) 651-3534.

Thank you for your participation,

Pat Willis
Chair, Council for School Performance

Section I: Education and Teaching Experience

Q1. What is the name of your school?

_____

Q2. What is the highest level of education you have completed?
CIRCLE ONE

1 Completion of a high school diploma or GED
2 Completion of an associate's degree
3 Completion of a bachelor's degree
4 Completion of a master's degree
5 Completion of an education specialist's degree
6 Completion of a Ph.D. or Ed.D. degree
9 Don't Know/No Response

Q3. Are you currently in a degree program?
CIRCLE ONE

1 No
2 Yes – SPECIFY: Program _____

University_____

Q4. Not including the current school year, how many years have you taught at this school?

_____ Number of years

Q5. Not including the current school year, how many years have you been employed as a teacher?

_____ Number of years as a teacher

Q6. Last year were you assigned to teach any subjects or grade levels for which you did not have a valid teaching certificate?

1 Yes
2 No
3 Did not teach at this school last year
9 Don't Know/No Response

Section II: Participation in Staff and Professional Development Activities

Instructions: ***Please read the following definition of staff and professional development activities carefully.*** For this survey, a staff or professional development activity is defined as:

> An organized learning opportunity for teachers to acquire knowledge and skills to help them become more effective teachers. Staff development may consist of activities such as a single workshop, a conference, a workshop series, summer institutes, college coursework, or organized peer coaching and study group sessions. A staff development activity may be sponsored by many entities including your school, the school district, Regional Education Service Agencies (RESAs), state agencies, teacher academies, colleges, networks, or professional organizations.

For questions Q6 to Q16, think about the staff development activities in which you have participated from ***September 1995 through August 1997***. Your answers to these questions are meant to provide a description of ***your best staff development experience*** in terms of learning and using the skills and knowledge.

Q7. What was the title/topic of the ***best*** staff development activity in which you participated since September 1995?

_____

Q8. When did your participation in this staff development activity begin?
CIRCLE ONE

1 Within the past 6 months
2 6 months to a year ago
3 One to two years ago
9 Don't Know/No Response

Q9. Is this an ongoing training in which you are still involved?
CIRCLE ONE

1 Yes
2 No
9 Don't Know/No Response

Q10. What was the format for the staff development activity?
CIRCLE ONE

1 Single workshop
2 Series of sequentially organized workshops supported over time
3 Multi-day conference including many different seminars
4 College coursework
5 Activity in which organized peer coaching/observation sessions were the primary activity
6 Activity in which organized peer study groups were the primary activity
7 Other
Specify:_____

Q11. Which of the following areas were covered during this staff development activity?
CIRCLE ALL THAT APPLY

1 Content knowledge of a specific subject area such as mathematics

Which subject area? _____

2 Teaching techniques, strategies, or methods

Which technique, strategy, or method was emphasized? _____

3 Curriculum

Which curriculum area? _____

4 Technology

5 Classroom management and discipline

6 Group learning processes such as collaboration, peer coaching, peer study groups, and action research

In what specific area? _____

7 Other
Specify: _____

Q12. The reason I participated in the staff development activity was. . .
CIRCLE ALL THAT APPLY

1 For my personal professional needs and goals
2 For Staff Development Unit (SDU) credit for recertification
3 For a stipend for extra income
4 It was required by the state, the district, or my school administration.
5 I was encouraged to attend to meet priorities set by the district office or my principal.
6 I was encouraged to attend to meet priorities set through a collaborative planning process addressing the needs of my school
7 Other Specify:_____

Q13. Which of the following describes an aspect of the training?
CIRCLE ALL THAT APPLY

1 An understanding of the rationales and principles behind the skills or strategies was developed through lectures, readings, and discussions.
2 The skills or strategies were demonstrated live or through film or videotape.
3 I participated in initial practice under simulated conditions during the training.
4 The training involved practice in the classroom or workplace.
5 Peer coaching/observation was part of the training.
6 Peer study groups were part of the training.
7 Follow up and support in implementing the new skills were part of the training.
8 The change process of trying something new in a school was discussed and studied.
9 GSAMS or satellite telecommunications were used.
10 None of the above

Q14. The following statements describe different stages of using the information, skills, or strategies you learned in this staff development activity. Which of the following statements best describes your level of use?
CIRCLE ALL THAT APPLY

1 I know the information, skills, or strategies, but I am not using them.
2 I am preparing for my first use of the information, skills, or strategies.
3 I am attempting to use the information, skills, or strategies but I am not yet comfortable in using them.
4 I routinely use the information, skills, or strategies.
5 Working with colleagues, I am integrating their use in activities.
6 I am reevaluating their use and seeking modifications to be more effective.
9 Don't Know/No Response

Q15. I experienced the following outcomes as a result of the staff development:
CIRCLE ALL THAT APPLY

1 Positives changes in attitude
2 Increased discussion with my colleagues about the staff development content
3 Increased use or production of curriculum materials
4 Changes in lesson planning
5 Improved performance or behaviors of my students
6 Increased learning outcomes of my students
7 Increased shared decision-making and collaboration
8 Other
Specify:_____

Q16. What organization provided the staff development training?
CIRCLE ONE

1 My school
2 My school system
3 The Regional Education Service Agency (RESA)
4 A professional association or organization
5 The Georgia Department of Education
6 Business community partners
7 College or university
8 Other
Specify:_____

Q17. Who delivered the staff development training?
CIRCLE ALL THAT APPLY

1 Staff from my school
2 Staff from the school system
3 Staff from the Regional Education Service Agency (RESA)
4 Staff from the Georgia Department of Education
5 Staff and professional development consultants
6 College/University personnel
7 Other
Specify:_____

Q18. Q6 to Q17 ask you to describe your best staff development experience since September 1995. In the space provided below, please list the title/topic, a brief description, and the sponsoring organization for all your staff development activities since September 1995.

	Title/Topic/Description	Sponsor
1.		
2.		
3.		
4.		
5.		
6.		

Section III: Support for Staff Development

Instructions: ***Recall your experiences with your principal, fellow teachers, and teaching in this school in the 1995-96 school year (two years ago)***. For each statement circle the number that indicates if you strongly agree (1), agree (2), unsure whether you agree or disagree (3), disagree (4), or strongly disagree (5) with the statement. If you were not at this school in 1995-96, circle (9).

Statement	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree	At School < 2 years
Q19. Sufficient financial resources were available for staff development activities for teachers in my school.	1	2	3	4	5	9
Q20. Sufficient time was provided for the teachers to work on their professional development	1	2	3	4	5	9
Q21. District-level administrators strongly supported the professional development of teachers in my school.	1	2	3	4	5	9
Q22. The principal strongly supported the professional development of teachers in this school.	1	2	3	4	5	9
Q23. The teachers in my school viewed staff development activities as an essential part of being a teacher.	1	2	3	4	5	9
Q24. The professional development of teachers was an integral part of the expectations and operation of my school.	1	2	3	4	5	9
Q25. In my school, information about effective implementation of innovations was studied and used to guide practice.	1	2	3	4	5	9
Q26. Training in collaborative skills occurred regularly for teachers in my school.	1	2	3	4	5	9
Q27. Data on student performance were used in planning staff development activities.	1	2	3	4	5	9

Section IV. School Climate

Instructions: ***Recall your experiences with your principal, fellow teachers, and teaching in this school in the 1995-96 school year (two years ago)***. For each statement circle the number that indicates if you strongly agree (1), agree (2), unsure whether you agree or disagree (3), disagree (4), or strongly disagree (5) with the statement. If you were not at this school in 1995-96, circle (9).

Statement	Strongly Agree	Agree	*Unsure*	Disagree	Strongly Disagree	At School < 2 years
Q28. The principal protected learning time from disruption.	1	2	3	4	5	9
Q29. The principal routinely collaborated and shared with teachers in decision-making and problem-solving about the instructional process.	1	2	3	4	5	9
Q30. The principal worked with teachers to evaluate and appropriately use new information to improve instruction.	1	2	3	4	5	9
Q31. A clearly articulated mission focused on student learning existed within my school.	1	2	3	4	5	9
Q32. The principal effectively and persistently communicated the school's mission to staff, parents, and students.	1	2	3	4	5	9
Q33. The principal and teachers were committed to the school's mission and goals.	1	2	3	4	5	9
Q34. Data on student learning were regularly collected and reviewed with all members of the school community.	1	2	3	4	5	9
Q35. The belief that all students can attain mastery of essential school skills was modeled throughout the school by the principal and teachers.	1	2	3	4	5	9
Q36. The teachers in my school had the skills and knowledge to help students with widely different learning abilities to master basic skills.	1	2	3	4	5	9

Section IV:. School Climate (continued)

Statement	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree	At School < 2 years
Q37. Teachers in my school were prompt in handling routine classroom tasks with minimum disruption or delay in the learning process.	1	2	3	4	5	9
Q38. Teachers used a wide variety of instructional methods to motivate student learning and increase student participation in learning activities.	1	2	3	4	5	9
Q39. Teachers used a variety of methods to assess student learning to improve individual student performance and to improve instruction.	1	2	3	4	5	9
Q40. There was wide parent participation and support in helping the school achieve its mission.	1	2	3	4	5	9
Q41. A safe and orderly environment existed within the school.	1	2	3	4	5	9
Q42. School facilities were well maintained.	1	2	3	4	5	9
Q43. Students in my school were actively engaged in learning activities throughout most of the class time.	1	2	3	4	5	9

THANK YOU FOR COMPLETING THE SURVEY. PLEASE RETURN THE SURVEY IN THE ENVELOPE PROVIDED.

APPENDIX D
Staff Development Factors by Areas of Inquiry in Interviews

Table D1. Content of Staff Development Activities Emphasized by School Personnel

Staff Development Content	All Schools	Higher	Lower
1. Staff development activities to improve teachers' knowledge of academic content and knowledge of how students learn	85%	79%	90%
2. Staff development activities to teach new instructional strategies, curriculum, and/or assessment strategies.	95%	93%	97%
3. Staff development activities to teach how to engage in group/collegial learning/working processes (school improvement planning, problem solving, using data for planning)	66%	62%	70%
4. Staff development activities to teach how to use action research to guide teaching practices	34%	24%	43%
5. Staff development activities to teach classroom management techniques for student behavior/discipline.	78%	69%	87%
6. Staff development activities to teach the use of technology	88%	90%	87%
7. Staff development activities to improve teachers' knowledge of topics or issues not directly related to student learning (ethics, school law, interactions with parents)	49%	45%	53%

*Statistically significant (p<.10)

Table D2. Training Programs for Beginning Teachers

	All Schools	Higher	Lower
1. Formal orientation to school district policies	88%	83%	93%
2. Formal mentoring program using experienced teachers	77%	76%	79%
3. District induction program in addition to mentoring program	41%	28%	53% *

*Statistically significant (p<.10)

Table D3. Characteristics of the Delivery of Staff Development Activities Emphasized by School Personnel

	All Schools	Higher	Lower
1. Primarily workshop formats (group study and discussion)	85%	79%	90%
2. Primarily lecture formats	29%	34%	23%
3. Staff development activities usually provide an opportunity for initial practice of skills	61%	69%	53%
4. Staff development activity uses supporting materials such as video, overheads, games, etc.	24%	24%	23%
5. Staff development activity involves follow-up sharing, presentations, and collaboration in team meetings, department meetings, or other faculty meetings	58%	55%	60%
6. Staff development activity involves follow-up support in implementation through classroom observations, reviews of lesson plans, review of assignments, etc.	42%	41%	43%
7. Staff development activity allows teachers to observe practices during site visits in other schools (primarily mentioned referring to block scheduling implementation)	17%	10%	23%
8. Staff development activity is a series of training sessions through the school year or during the summer	31%	35%	27%
9. Staff development activity consists of attending professional conferences	36%	31%	40%
10. Staff development activity is a college course	19%	21%	17%
11. Staff development activity consisted of the live or taped demonstration of teaching techniques	9%	10%	7%
12. Staff development activity conducted by a teacher in the school trained in the technique	14%	3%	23% *

*Statistically significant (p<.10)

Table D4. Outcomes of Staff Development Activities Emphasized by School Personnel

	All Schools	Higher	Lower
1. Improved instructional skills (e.g. variety of instructional strategies, student centered instruction, etc)	78%	79%	77%
2. Changes in lesson plans to incorporate new material and instructional methods	27%	26%	27%
3. Increased use and production of curriculum materials	56%	63%	50%
4. Increased sharing and collaboration among teachers	38%	32%	42%
5. Increased student learning	31%	37%	27%
6. Change in students' behavior (e.g., level of activity, interest)	47%	63%	35% *
7. Change in allocation of instructional time	4%	0%	8%
8. Change in administrative policies and procedures	4%	5%	4%
9. Improved teacher attitudes, morale, and enthusiasm	29%	32%	27%

*Statistically significant (p<.10)

Table D5. Methods Mentioned for Evaluating Staff Development Activities

	All Schools	Higher	Lower
1. Skill evaluation (any one of a., b., or c. below)	71%	83%	59% *
a. Measure participant's skills after training	2%	0%	3%
b. Observe in classroom	60%	69%	52%
c. Review lesson plans	36%	41%	31%
2. Verbal evaluation of training (a. or b. below)	67%	72%	62%
a. Discuss and present during department, grade level, or cluster faculty meetings	28%	31%	24%
b. Informally discuss with colleagues and provide feedback to administration	62%	62%	62%
3. Evaluated by survey of participants' perceptions. Specific activities and/or staff development activities in general	36%	45%	28%
4. Evaluated through an assessment of student performance (e.g., student achievement, behavior)	40%	41%	38%

*Statistically significant (p<.10)

Table D6. Roles for Staff Development Emphasized by School Leadership

Roles	All Schools	Higher	Lower
1. Improve instruction in areas of student needs	67%	65%	70%
2. Create a climate for shared staff development among teachers	17%	23%	10%
3. Foster a climate of continuous improvement through updating of content knowledge and developments in education	50%	54%	45%
4. Manage time and money for staff development activities	11%	8%	15%
5. Encourage individual teachers to improve	22%	27%	15%
6. Support school goals	28%	27%	30%
7. Meet state and district requirements (e.g., certification renewal)	13%	11%	15%

*Statistically significant (p<.10)

Table D7. Principal's (or Administrator in Charge of Staff Development) Professional Experience, Education, and Training in Staff Development Guidance

	All Schools	Higher	Lower
1. Prior experience in a position with responsibilities for staff development planning/training (e.g., lead teacher, curriculum specialist, RESA consultant)	28%	31%	25%
2. Trained as a trainer for a specific type of education related training	20%	19%	20%
3. Received training in staff development planning/training as part of leadership courses	65%	65%	65%
4. Very little training in planning or providing staff development	48%	42%	55%
5. Active involvement in professional educational organizations (serving in an official capacity or frequent attendance of conferences)	13%	12%	15%
6. 10 or more years of experience in building-level administration	52%	65%	35% *
7. Prior career experience in elementary schools	48%	54%	40%
8. Prior career experience in middle schools	33%	31%	35%
9. Prior career experience in high schools	44%	46%	40%

*Statistically significant (p<.10)

Table D8. Pervasiveness of Staff Development Activities Among Faculty

	All Schools	Higher	Lower
1. Staff development activities are integral to the operation of the school; all teachers are involved in staff development activities through out the year; staff development activities include collegial work through department, grade level, or cluster meetings	24%	31%	17%
2. Staff development activities serve as a point of common experience for faculty occurring school-wide or in groups of teachers with common professional interests but not very much collegial sharing and learning outside of common staff development activities	42%	41%	43%
3. Staff development activities are primarily the concern of the individual teacher for strengthening skills, meeting professional interests, or renewing teacher certification	34%	28%	40%

*Statistically significant (p<.10)

Table D9. Motivations Emphasized by Teachers for Participating in Staff Development Activities

	All Schools	Higher	Lower	
1. Personal professional needs (e.g., learning new ideas, improving skills, adult affiliation)	93%	90%	97%	
2. Faculty involvement in identifying school needs and deciding on staff development	19%	35%	9%	*
3. External staff development requirements (e.g., certification renewal, district requirements, principal's requirements)	80%	69%	90%	*
4. Encouragement and support from school or district leadership	10%	21%	0%	*
5. Summer stipends/gaining compensation time	41%	28%	53%	*
6. Impacting students' lives	27%	41%	13%	*
7. School improvement goals, planning, and school leadership	22%	38%	7%	*
8. Changing characteristics of student population	7%	14%	0%	

*Statistically significant (p<.10)

Table D10. Primary Factors Emphasized by the Principal (or Administrator in Charge of Staff Development) Influencing School Staff Development Activities

	All Schools	Higher	Lower	
1. The desire to improve student performance	60%	72%	46%	*
2. A school improvement or reform initiative (e.g., site based management, block scheduling, charter schools)	42%	41%	43%	
3. Assessment of school needs or those of individual teachers through surveys and performance appraisals	47%	45%	50%	
4. Emphasis on incorporating technology in education	42%	55%	29%	*
5. Adoption of new textbooks, curriculum change, and instructional improvement	33%	45%	21%	*
6. Changing characteristics of student population	7%	7%	7%	
7. External staff development requirements (e.g., certification renewal, district requirements, principal's requirements)	33%	35%	32%	

*Statistically significant (p<.10)

Table D11. Strategies for Providing Time for Staff Development Activities

	All Schools	Higher	Lower
1. Staff development activities occur on weekends, before school, and after school	85%	86%	83%
2. Staff development activities occur in regular faculty, department, grade level, or cluster meetings	46%	52%	40%
3. Staff development activities occur during in-service days, pre-school planning days, and post-school planning days	88%	97%	80%
4. Substitutes are used to provide release time or instructional time is lengthened part of the week to provide a full or partial release day during the week for staff development activities	81%	83%	80%
5. Early release days are used to provide time for staff development activities	2%	0%	3%
6. Staff development activities occur during the summer	97%	97%	98%

*Statistically significant (p<.10)

Table D12. Staff Development Responsibilities of School Staff

	All Schools	Higher	Lower
1. School has a part or full time staff person that primarily has staff development responsibilities (e.g., lead teacher, curriculum specialist, assistant principal)	48%	62%	33% *
2. A full time teacher has staff development responsibilities in addition to regular duties (may include being a liaison with the district staff development office, serving on a district staff development committee, keeping track of staff development activities and expenditures at the school)	17%	0%	33% *
3. Full time teachers participate on the school improvement or leadership team to identify staff development needs, plan and support staff development activities, and facilitate implementation of practices learned through staff development	42%	59%	27% *
4. Full time teachers through department, grade level, or cluster groups are responsible for needs assessment, some training, and sharing of staff development activities	27%	41%	13% *
5. Staff development responsibility at the school is primarily administrative (approving requests from individual teachers, tracking money and SDU). Key person is the principal, assistant principal, full time teacher, or committee chair of a planning committee	39%	28%	50% *
6. Principal keeps staff development activities focused on school's goals	39%	41%	38%
7. Principal strongly supports staff development by communicating opportunities, finding resources, participating with teachers, etc.	31%	35%	27%
8. Principal assesses needs for staff development through teacher evaluations and school planning	66%	76%	57%

*Statistically significant (p<.10)

Table D13. School Staff Development Decision-Making Process

Decision-Making Process	All Schools	Higher	Lower
1. Individualized staff development - Assessment of staff development needs in a school is primarily through a survey of teachers' perceived needs and wants; Principal assesses individual needs through evaluations; individual teachers sign up for courses offered through the district or local RESA; school administration approves requests	38%	32%	43%
2. School administration directed staff development - Assessment of staff development needs in a school is primarily done by school administrators through classroom observations, student test data, and discussions with teachers; school administrators decide on direction of staff development activities to meet school and individual needs	28%	18%	37%
3. Collaborative staff development - Assessment, planning, and delivery of staff development activities is primarily a collaborative process involving school administrators and teachers through school committees, departments, grade level groups, and/or cluster groups. Assessment of needs is primarily focused on student outcomes (e.g., student achievement, discipline referrals); School administrators assess individual teacher's needs through the evaluation process	35%	50%	20% *